



IK Industrievereinigung  
Kunststoffverpackungen e.V.

## IK Statement on the

### GREEN PAPER

## On a European Strategy on Plastic Waste in the Environment

presented by the European Commission on 7 March 2013

The IK Industrievereinigung Kunststoffverpackungen (IK), the German association for plastics packaging and films, represents the interests of the manufacturers of plastics packaging and films, who are active on the German market. With over 300 medium-sized member companies IK represents a branch which, with 4.2 million tonnes of processed plastics accounts for about 35% of all plastics processing in Germany. 90,000 employees work in a sector which in Germany is very export-oriented (either direct export, especially of film rolls, or indirect export through packaged goods). This is also reflected in the marked difference of 2.8 million tonnes consumption of plastics packaging in Germany, which become waste, and the 4.2 million tonnes of plastics packaging produced.

In the 23 years since the publication of the 1st draft of the German Packaging Ordinance, the IK has continuously been very actively involved in the creation and development of structures for the collection and recycling of plastics packaging. This involvement has given the IK an extensive wealth of experience of the three main pillars of packaging collection and recycling in Germany: door-step collection (“yellow bag”); the deposit system for non-refillable PET bottles; collection systems for commercial plastic packaging. The IK is currently intensively participating in the discussion on the introduction of a comprehensive recycling bin (Wertstofftonne) and, in conjunction with other distributors from the packaging industry and the trade sector, has founded a holding company for a future „central body” to assume in practice product responsibility as part of a changed structure for the collection of packaging and door-step products of similar material.

The IK welcomes the discussion and consultation process opened by the Green Paper on plastic waste which, in Europe and also in Germany, is generated to over 60% by used plastics packaging. In this respect the IK, as the largest association of plastics packaging producers in Europe, feels directly addressed by this Paper and will make a constructive contribution to both the consultation process and further political discussion on plastics (packaging) waste. Some of the activities which the association has conducted, or is still conducting, in the sense of the aims formulated in the Green Paper, can be found in the IK Sustainability Report 2012 (in German and English) under [www.kunststoffverpackungen.de/Publikationen](http://www.kunststoffverpackungen.de/Publikationen), particularly in the chapters „Resource efficiency and recycling-based

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economy“, „Protection of the oceans from plastic litter“ and „Product life cycle assessments and eco design“.

### **Much welcomed objectives and statements in the Green Paper**

Notwithstanding the following critical comments on the Green Paper, the IK supports a number of considerations and approaches to resource conservation and resource efficiency:

- **No landfill of plastic waste**

The IK supports expressly all initiatives and proposals which aim at reducing and, ultimately stopping, the landfill of plastic waste. European countries which have a total or partial ban on (plastics) waste, also demonstrate the plastics recycling rates in Europe. The German ban on landfill (in force since 2005) has also contributed to the fact that in Germany about 40% of plastics packaging is recycled mechanically. Although it is no longer relevant for Germany itself the IK is actively participating in the European plastics industry initiative „Zero Plastics to Landfill by 2020“.

- **Voluntary actions on the part of industry**

The IK supports, and initiates itself, voluntary measures on the part of industry to increase resource efficiency and, to reach a higher level of collection and recycling of plastics (packaging) waste. For example, in conjunction with manufacturers and traders, the IK is currently preparing a voluntary commitment on the return and recycling of agricultural films. Moreover the Association is coordinating minimum specifications at all levels in the PET bottle supply chain which comprise the use of recyclates in order to progressively raise the use of PET recyclates above the current level of about 25%.

- **Prevention/reduction of Marine Litter caused by plastic waste**

The IK supports the idea of examining the effectiveness of all waste management measures on land in reducing marine pollution through plastic waste. After all, approx. 80% of all marine litter originates on land and is caused by inadequate collection as a result of unsatisfactory waste management structures as well as the behaviour of the end consumers. The Green Paper quite rightly points out the international component of this global environmental problem; also the fact that a further worsening of this problem can be expected particularly in the emerging and developing countries. As a signatory of the “Declaration of the Global Plastics Associations for Solutions on Marine Litter“ of March 2011 the IK is contributing with specific activities to both raise awareness of the global environmental problem and, together with other participants, to address viable projects to reduce land-based marine litter, see also:

[www.kunststoffverpackungen.de/umwelt\\_\\_\\_nachhaltigkeit\\_4735.html](http://www.kunststoffverpackungen.de/umwelt___nachhaltigkeit_4735.html)

- **Use of LCAs in waste prevention and enhanced resource efficiency**

The IK supports expressly the statements on the use of LCAs, not only for non-durable products. The IK has initiated several LCAs of plastics packaging, such as PET bottles, and carried out an extensive Critical Review process. The results have been incorporated in specific projects to further improve the environmental performance.

- **Biodegradable plastics**

The IK expressly welcomes the realistic view of the EU Commission on biodegradable plastics, also when compared to earlier declarations. Already in 2009 the IK pointed out to its member companies the problems and possible negative impacts associated with the use of oxo-degradable (or better: oxo-fragmentable) plastics.

- **Reducing the consumption of non-durable plastic products, e.g. carrier bags**

The IK is committed to reducing the disproportionate use of plastic carrier bags by:

- Assignment of value to carrier bags, i.e. no free distribution at the point of sale, as it has been practised in the German grocery retail segment for approx. 30 years
- Increased multipath use of carrier bags.

- **Full implementation of waste regulation in the EU Member States**

The IK underlines the statements in the Green Paper on the inadequate implementation of the European waste legislation in many EU Member States. What is missing in this context is a differentiated environmental impact assessment, i.e. an answer to the question as to which positive impacts could be achieved on the conservation of resources and other environmental aspects if all EU Member States were to comply fully with existing waste legislation.

### **Critical views of the IK on the Green Paper**

- **Material-specific approach**

The EU Commission's new approach in the Green Paper of wanting a solution to general environmental problems in waste management on the basis of *one* class of materials must however be critically challenged. As the Green Paper states, much of the waste legislation in the Member States is not being implemented or enforced. Consequently, this is not a

material-related problem but one which affects every type of waste. Moreover, many questions concerning product design and the change in consumer behaviour up to a more sustainable use of the products (multiple use, leasing, ease-of-repair etc.) are not plastics-specific, but apply equally to products made of other materials. We consider the evaluation of five EU waste stream specific directives by the Commission (as planned for 2014), which will examine the waste problems comprehensively, as the more effective approach.

- **Absence of differentiation**

Although the erratic implementation of waste legislation in the Member States is deplored in the Green Paper, the different levels of plastic waste collection and recycling reached in the Member States are indiscriminately presented, even though pertinent studies exist. Such a differentiation is necessary to enable a practical allocation of resources and significant improvements e.g. in collection and recycling, especially where the backlog is greatest.

- **Additives**

The statements on chemical additives particularly in section 1. („Fate in the environment”) are misleading since, in this case, additives are linked with harmful substances, such as DDT and PCB, thus placing plastics per se alongside carcinogenic and mutagenic substances. Unlike the statements on waste management, other sweeping concerns expressed in the text towards plastic additives are not supported by analyses and studies. To some extent the statements on this subject in the Green Paper are self-contradictory, as reference is made to the REACH and CLP regulations, which also apply in equal measure to plastic additives.

Besides this basic assessment of the Green Paper, by answering the 26 questions in attachment 1, the IK supports the process of discussion and deliberations on the problems pointed out in the Green Paper.

Bad Homburg, 7 June 2013

## **Attachment 1 – In reply to the questions**

### **Use of the waste hierarchy in the management of plastic waste**

#### **(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 IK is of the opinion that a more consistent Europe-wide implementation of the existing waste legislation would suffice to bring considerable improvements in plastic waste management. Enforcement of the existing legal framework in all Member States should therefore be awarded top priority.

The IK is also committed to a European ban on landfill for all recyclable and high calorific waste, which includes plastic waste, by 2020. While only seven EU Member States landfill less than 10% of their plastic waste, in eleven other Member States landfill still constitutes over 60%.<sup>1</sup> In most countries landfilling is still the most widespread method of waste disposal and is an unacceptable waste of resources. The revision of the European Landfill Directive planned for 2014 should therefore be seen as an opportunity to gradually introduce a ban on landfill for recyclable and high calorific waste.

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

The IK deems the following measures suitable to create the conditions for more competitiveness and growth in plastics recycling:

- Ban on landfill for recyclable and high calorific waste in all EU Member States (see question 1)
- Comprehensive introduction, Europe-wide, of separate door-step collection of plastic waste
- Besides packaging waste, also recyclable waste from non-packagings (e.g. household items made of plastics) should be included in the separate door-step collection and thus be made accessible to recycling
- Automated sorting according to plastic type should be advanced to the current state of the art in all EU countries.

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<sup>1</sup> See Consultic study „Post-consumer Plastic Waste Management in European Countries“.

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

The IK takes the view that the current legislation in the European Landfill Directive, which provides for a ban on landfills for household waste not rendered inert as of 2018, is inadequate particularly because the term „inert“ is not defined in detail and is therefore subject to different interpretation at national level. In all other respects the existing European regulations are adequate. These must however be enforced EU-wide, uniformly and effectively.

**(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?**

The IK supports a ban on landfill for all recyclable and high calorific waste, which also includes plastic waste by 2020. The IK considers that in combination with the landfill ban a substantial increase in landfill fees is an appropriate instrument to effectively reduce the present landfilling of plastic waste and to promote the recycling of plastic waste.

**(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?**

Experience in Germany has shown that, as a rule, the mechanical recycling of plastics prevails in the market when material qualities are produced which can replace new plastic products. Inducements are not meaningful which are only aimed at increasing the quantities recycled, without creating the conditions for high-level material qualities. For this reason the IK considers a tax on energetic recovery an unsuitable instrument to promote recycling. On the contrary, improvements in volume and quality should be made using the measures described under point (2).

At the same time, however, experience in Germany has also shown that constraints on mechanical recycling resulting from misguided incentives (such as over-capacities of waste incineration plants and the cross-subsidising of communal waste incineration plants with waste fees) must be avoided or removed.

**(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?**

German experience has shown that, to enable cost-effective waste sorting, separate door-step collection of plastic waste is essential. Nevertheless, downstream sorting remains necessary, particularly sorting according to

plastic type. Pay-As-You-Throw models can be a meaningful supporting measure, while also harbouring the risk of misplaced incentives which can lead to increased „contamination“ of the recoverable waste fraction through residual waste. Mandatory implementation should therefore, if at all, apply only to the separate collection of plastic waste (possibly together with other recyclable waste fractions) and guarantee that the end-user is able to easily manage the separate collection of plastics packaging.

### **Attaining targets, plastics recycling and voluntary initiatives**

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

The IK considers EU-wide minimum quotas for the recycling of certain product groups (such as packaging waste) appropriate. Experience in Germany has shown that moderate recycling targets can be conducive to the creation of a collection and recycling infrastructure, whereby the following points are important:

- In collaboration with industry, the quotas should be aligned to current technological developments and market development in each EU Member State. Inflated recycling targets are not productive as they lead to one-sided volume growth, to the detriment of material quality.
- Recycling quotas should address specific product groups separately (e.g. packaging, electronic waste etc.), as a general recycling quota for the material plastic misses the targeted effect.

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

As a basic principle, it should be ensured that exported recyclable plastic waste is treated in plants which reflect the current state of the technology. Initiatives from industry, such as „EuCertPlast“ ([www.eucerplast.eu](http://www.eucerplast.eu)) for quality certification of plastics recyclers, make a valuable contribution in this respect.

Furthermore, clearly-defined „end-of-waste“ criteria for plastics would be helpful in keeping track of the export of plastic waste, also to non-EU countries, according to standardised criteria.

**(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 measures are useful in some sectors. Some successful examples in the packaging sector in Germany are:

- Voluntary take-back schemes for industrial packaging (so-called „Return Tickets“)
- Return and recovery schemes initiated by the manufacturers, e.g. of mineral oil bottles and hazardous industrial packaging
- The return and recovery of agricultural films (currently in preparation by the IK)
- The voluntary initiative of the retail food trade to stop the free distribution of carrier bags.

**Influencing consumer behaviour**

**(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?**

Based on positive experience with the deposit system in the area of drinks packaging, the IK is of the opinion that, in principle, deposit and take-back systems can be extended to other products and countries, always however subject to an LCA and a cost-benefit analysis.

**(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?**

The IK supports in principle activities which improve consumer information on environmental questions. Important aspects of consumer communication are however

- Avoiding misguidance: many LCAs show that, in many cases, the use phase of a product has the greatest resource conservation potential. Consequently, consumer information on resource efficiency should address those aspects in the life cycle of a product where the consumer can make the greatest contribution to the conservation of resources, whether it is the right choice, to the proper use or to the adequate disposal of a product. In the case of packed food for instance, avoiding unnecessary food waste is most often more important for overall resource efficiency than avoiding packaging waste.
- Resource efficiency is merely one environmental aspect among many. Analogous to the discussion on Product Carbon Footprints



the IK is against one-sidedness or a disregard of other environmental aspects in consumer communication.

- Consumer information on resource efficiency applies to all materials, not only plastic products.
- Environment-related product labelling should be harmonised at European level and consider existing standards.

## **Towards more sustainable plastics**

**(12) Which changes to the chemical design of plastics could improve their recyclability? AND**

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

Approximately 90% of all plastics packaging in Germany consists of 3 types of plastics (Polyethylene, Polypropylene and PET). These thermoplastics can be separated easily from the waste stream using infrared sensor technology and in principle are easily recyclable.

For product protection reasons many additives and barriers are indispensable and do not obstruct recycling to any great extent. Contamination through materials which can severely disrupt recycling, such as additives for oxo-degradation, must be prevented at all costs, in order to secure the successes in plastics recycling already achieved. Oxo-degradable additives can severely impair the established recycling streams. These additives are incorporated in conventional plastics and allegedly bring about the biological degradation of these plastics. However, as the additives themselves are not detectable, they find their way via mechanical recycling into the material fractions. Once there, they contaminate the material streams and effect degradation of the polymer chains in the recyclates. Hence, oxo-degradable additives should not be used.

In the light of some packaging components (e.g. labels, closures, adhesives), the design itself can have a considerable impact on the recyclability of the packaging. What is needed here is close cooperation across the entire value-added chain (in particular recyclers and packaging manufacturers), as has already been demonstrated impressively in the PET bottle sector by the European PET Bottle Platform (EPBP) ([www.petbottleplatform.eu](http://www.petbottleplatform.eu)).

**(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?**

Although micro-plastic particles are not used in the packaging sector, to prevent these particles entering the environment, the IK advocates a ban on the use of micro-plastic particles in products.

The IK also supports further research into nanoparticles in plastics. Recent studies conducted by the Fraunhofer Institute IVV show that neither silver particles nor titanium nitride in nanoform migrate from the plastic matrix.

The IK expects of the EU Commission an up-dated definition of nanoparticles which takes into consideration the latest scientific and technological developments.

### **Durability of plastics and plastic products**

#### **(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?**

This aspect is not relevant for the packaging sector.

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

This question should not be answered only for plastics since, in principle, reusability and durability are also relevant for products made of other materials.

However, some degree of product-specific differentiation should be made. Packaging design per se should not only be geared to durability, as product protection is usually only required for relatively short periods of time. In the eco-design of packaging other aspects, such as recycling options and product protection (in connection with the prevention of food losses and other product waste) play a far more important role.

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

In principle, the IK is in favour of internalising environmental costs, but this should not however affect only plastic products. In this sense the IK also supports the widening of the manufacturers' product responsibility for disposal, as it was implemented for packaging by the Dual Systems, to other product groups..

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

Experience in Germany with recovery rates of 99% for plastic waste show that this mainly depends on functioning waste management systems with door-step collection. In Germany the collection of plastic waste is a mixture of 3 systems: the separate, door-step collection of packaging waste (via the Dual Systems), deposit regulations in the drinks packaging sector and

industry solutions for commercial packaging. Due to their added value, some single-use disposable products are reasonable or even indispensable, e.g. in the field of medical or hygiene products.

## **Promoting biodegradable plastics and bioplastics**

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

In the packaging sector the IK currently sees no need for specific support measures for the established biodegradable plastics market. In a recent study commissioned by the German Federal Environmental Agency („Untersuchungen der Umweltauswirkungen von Verpackungen aus biologisch abbaubaren Kunststoffen“) (2012) several reasons were elaborated why the promotion (through the exemption from Dual System licence fees), anchored in the Packaging Ordinance, should not be extended past 2012. In those applications in which the use of biodegradable plastics packaging is practical and productive, the IK is of the opinion that market forces are adequate.

The IK considers that proposals which were presented recently at a workshops co-organised by our association, are worth exploring, i.e. to initiate fundamental research with help of EU funding into an environmentally sound biodegradation of plastics in the marine environment.

### **(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?**

This distinction is purely of an academic nature, since natural composting is currently not an option for the treatment of biodegradable plastic waste.

However, it is important to avoid consumer deception, as this could mislead to disposing in the garden compost or even to increased littering of plastic waste. If industrial compostability is indicated as a property, there should be a certificate (issued by independent third parties) in accordance with EN 13432 or of an equivalent standard.

Recycling and/or disposal information must also conform to the relevant European regulations. For packaging this is the Packaging Directive. A specific recycling or disposal option should only be recommended if „an appropriate number of consumers“ has access to existing plants (European Commission).

Besides European legislation, producers should also consult national waste regulations and specific agreements relating to bioplastics.

**(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?**

At this point an important translation error in the German version of the Green Paper should be noted: „oxo-degradable plastics“ was translated as „biologically degradable plastic“. The IK answer deals with oxo-degradable plastics.

The IK is of the opinion that the contamination of the plastic waste by oxo-degradable plastics in mechanical recycling must be prevented at all costs, as even small amounts can seriously affect the product qualities of the recycled materials. Jeopardising already attained levels of mechanical plastics recycling, with additives for oxo-degradation is not acceptable.

It should also be pointed out that term „oxo-degradable“ plastics is misleading and should be replaced by „oxo-fragmentable plastics“, since only fragmentation to microplastics, not complete degradation of these plastics is possible. This also carries the environmental risk of oxo-degradable plastics, which reach the oceans (Marine Litter).

Because of the high hazard potential to recycling and the environment, the IK calls for a ban on oxo-additives in 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?**

The IK is of the opinion that bio-based (not bio-degradable) plastics can be treated and recovered in the same way as conventional plastics as they have comparable chemical structures. However, sustainable management of the biomass from which the plastics are manufactured, is of utmost importance.

#### **EU initiatives for marine litter, including plastic waste**

**(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)?**

In this context attention must again be drawn to a more rigorous enforcement of waste legislation in Europe.

The IK strongly recommends increasing consumer awareness, as it is estimated that 65% of marine litter results from improper disposal on the

part of consumers on land.<sup>2</sup> The EU should act in this field, e.g. with the introduction of a European Coastline Cleaning Day or other appropriate measures.

The EU should also promote the creation of local programmes for reducing the volume of waste entering bodies of water (including streams, rivers, canals, lakes and coastlines) and the sewage systems, since effective measures are needed at local level (in the sense of an Agenda 21).

Awards for successful initiatives could also be introduced EU-wide.

**(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?**

A quantitative EU-wide target for reducing marine waste gives a positive vision and can thus act as a significant stimulus for activities. On an operational level however the targets must be broken down, at least for the four main seas (North-East Atlantik, Baltic Sea, Mediterranean and Black Sea) as well as for specific sources (e.g. for the waste and waste water management, shipping, tourism sectors, etc.).

### **International measures**

**(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 Sea?**

IK is of the opinion that EU involvement is needed particularly in the Mediterranean and Black Sea regions to improve waste management systems and to stop extreme mismanagement without delay (as it is the case for example for the Saida landfill in Lebanon).

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

The plastics industry is already involved in this area, not only nationally, but also at European and international level. Some examples of this are the Declaration of the Global Plastics Associations for Solutions on Marine Litter, transnational programmes and projects on Marine Litter as well as knowledge transfer for plastic waste management in practice.

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<sup>2</sup> see [www.algalita.org/AlgalitaFAQs.htm](http://www.algalita.org/AlgalitaFAQs.htm)

In 2005 the European plastics industry –in this case particularly the plastics manufacturing industry – launched the knowledge transfer project to enhance plastic waste management in France, Great Britain, Poland and Spain and last year expanded this into a project with the vision of a landfill ban across Europe. With this in mind, the plastics industry is cooperating with the actors in the value-added chain and is keeping statistics on plastics production, plastics consumption and plastic waste management. IdentiPlast, the annual conference of the European plastics industry, is held demonstratively in one of the landfill countries in question.

The plastics industry invites politics and public administration to consolidate this involvement with targeted funding programmes and other support options and is always open to dialogue on this issue.