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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**on the implementation of the circular economy package:
options to address the interface between chemical, product and waste legislation**

(Text with EEA relevance)

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1. INTRODUCTION

The European Commission adopted in December 2015 an ambitious Circular Economy Package to help EU businesses and consumers to make the transition to a stronger and more circular economy where resources are used in a more sustainable way.

The proposed actions contributed to "closing the loop" of product lifecycles through greater recycling and re-use to the benefit of both the environment and the economy. The aim is to extract the maximum value and use from all raw materials, products and waste, fostering energy savings and reducing greenhouse gas emissions.

Recycling and re-use can be hampered by the presence of certain chemicals. Some chemicals can simply constitute technical barriers preventing recycling. Even a benign substance, which for example has a strong smell, could in some cases prevent use of the recycled material¹. Other chemicals are hazardous to humans or the environment. A growing number of these are being identified and becoming subject to restrictions or prohibitions. These chemicals may be present in products sold before the restrictions applied, some of which have a long lifetime, and therefore prohibited chemicals can sometimes be found in recycling streams. Such substances can be costly to detect or remove, creating obstacles in particular for small recyclers. All these different types of chemicals we call 'substances of concern' in this Communication.

The Communication and the accompanying Staff Working Document is the result of cross-cutting work between experts in charge of different legislative areas. Also an extensive targeted stakeholder consultation was undertaken, which was open for input between 12 April - 7 July 2017 and received input from over 100 experts.

The Communication explores the four most critical issues identified in the way the legislation on chemicals, products and waste work together and how these are hampering a circular economy development. On this basis, we pose specific key questions on how these issues can be overcome and we indicate the actions that the Commission will already now initiate. In the accompanying Staff Working Document, the Commission services have provided a more elaborated analysis of the legal and technical challenges which need to be discussed and suggest possible options of how that would be possible.

¹ This could be the case for recovered materials to be used as a new food contact material.

2. WHAT DO WE AIM FOR?

The Circular Economy Action Plan contained the following two-fold objectives to be achieved:

- 1) enabling recycling and improving the uptake of secondary raw materials, by limiting unnecessary burdens, and facilitating the cross-border circulation of secondary raw materials to ensure that they can be traded easily across the EU; and
- 2) substituting substances of concern and, where this is not possible, reducing their presence and improving their tracking.

These two objectives, one stemming from waste policy and the other from chemicals policy, have often been perceived to be in opposition and have given rise to claims that the one policy area impedes on the fulfilment of the objectives of the other.

The aim of this Communication is to promote a broad discussion in the Union on how the major elements identified at the interface between chemicals, product and waste legislation can be addressed in a satisfactory manner. Solutions need to take into account that this is a policy field where specific – often regional or even local – circumstances play an important role.

We are looking for solutions with broad support from the involved stakeholders that should be implemented at the right level. Not all issues would necessarily need an EU level response if national or local solutions would help us achieve better results.

3. FOUR IDENTIFIED ISSUES

In the open, competitive EU market, firms produce their goods on the basis of the materials they believe suit their needs best. When waste has been treated to re-enter the market anew, these recovered materials are in direct competition with primary materials. Therefore, for any recovered material, its competitive position in the market is strongest when it is as close as possible to the primary material in performance and quality. This allows a broader range of uses for the recovered material.

Recovered materials that contain substances of concern may not be taken up because their use could simply harm the image of the product that contains the material. Furthermore, in some cases, these materials may not be allowed to be reused, for example, to produce new food contact materials.

In order to contribute to the success of the Union in maximizing recycling and minimising use of primary materials, we have thoroughly looked at the EU rules applicable to waste management, chemicals and products and found that four main issues stand out at the interface between these rules.

3.1. Information on presence of substances of concern is not readily available to those who handle waste and prepare it for recovery

Waste often consists of mixed goods produced at different times meeting different product standards. Often, companies handling waste do not have access to information on the composition of the discarded goods they handle because the information either does not exist or if it does, it is not available by the time the good becomes waste. Furthermore, materials may also be affected by incidental contamination throughout their lifecycle.

Example: The paper industry makes efforts to keep its product safe and easy to recycle. When paper is used by converters to make printed products, inks and other materials can be added. The current rules do not enable paper recycling mills to have sufficient information about chemicals added in previous life-cycles. This limits recycling of paper and increases costs due to the need to perform additional controls and testing². We have seen recent cases where ink residues and mineral oils have been found in food as a result of migration from packaging made from recycled paper and board³.

In addition, studies conducted by Member States relating to waste electrical and electronic equipment show that only in rare cases the information required under EU law is transferred to or made accessible to waste treatment facilities⁴.

3.1.1. *Objective*

We must ensure that appropriate information on substances of concern in products is available to all actors in the supply chain and ultimately also becomes available to waste operators. This will contribute to the promotion of non-toxic materials cycles and improve the risk management of chemicals during repair and other forms of reuse and in waste recovery processes.

3.1.2. *Planned actions*

In parallel with this consultation, we will improve the evidence base by launching a feasibility study, addressing representative sectors, on the use of different information systems, innovative tracing technologies and strategies which could enable relevant information to flow along article supply chains and reach recyclers. This study is expected to be ready by the end of 2019. Other planned activities include developing working procedures to make sure that imported articles do not contain substances which are not authorised for use in the production of articles in the EU, and simplified procedures for restricting CMR⁵ substances in consumer articles.

Questions:

What would be the added value of introducing a compulsory information system in the Union that informs waste management and recovery operators of the presence of substances of concern?

How should we manage goods imported to the Union?

² According to information from CEPI provided in the targeted consultation.

³ See for instance: <https://chemicalwatch.com/7210/mineral-oils-health-scare-sparks-food-packaging-debate> or BEUC's position paper (see page 5) <https://www.anec.eu/images/Publications/position-papers/Sustainability/ANEC-PT-2017-CEG-017.pdf>

⁴ Source: Input of the Swedish EPA and France. Studies: Goodpoint, Information on Hazardous Substances in Waste, 2016 (In English) and Goodpoint, Information Transfer on Hazardous Substances, 2017 (In English).

⁵ Substances that cause cancer, mutations or adverse effects on reproduction.

3.2. Waste may contain substances that are no longer allowed in new products

New chemicals are continuously placed on the market whilst others are forbidden when it is discovered that they pose a risk. This on-going process has the implication that products legally produced today may contain a substance that later may be forbidden. When the product becomes waste and is then recovered, the forbidden substance may still be contained in the recovered material. This is what we call the issue of 'legacy substances'.

Example: There are multiple examples of problems with "legacy substances". For instance, certain brominated flame retardants that are persistent, bio-accumulative and toxic have been reported found in recycled plastic products including toys and kitchen utensils⁶. In another case, the use of certain substances that were originally added to PVC to soften it is now regulated which means that recycled PVC containing those substances above specific quantities should not be used or placed on the market in the EU.

3.2.1. Objective

We must make recycling easier and improve the uptake of secondary raw materials by promoting non-toxic material cycles. In addition, when considering possible chemical restrictions and exemptions to restrictions, we must give more attention to their impact on future recycling and reuse.

3.2.2. Planned actions

The issue of legacy substances will continue to constitute a barrier to the circular economy and, therefore, we will take steps to develop a specific decision-making methodology to support decisions on the recyclability of waste containing substances of concern. This methodology will take into account the overall cost-benefit of recycling a material compared to its disposal (including incineration with energy recovery). We expect to finish this work by mid-2019.

We also see a need to prepare guidelines to ensure that the presence of substances of concern in recovered materials is better addressed in the early stages of the preparation of proposals to manage the risk of substances of concern.

Finally, we are considering enacting implementing legislation to allow an effective control of the use of the existing exemption from REACH registration for recovered substances.

Questions:

How do we reconcile the idea that waste is a resource that we should recycle and, at the same time, ensure that waste that contains substances of concern is only recovered into materials which can be safely used?

Should we allow recycled materials to contain chemicals that are no longer allowed in primary materials? If so, under what conditions?

⁶ See reference to several studies provided in contribution by EEB and BEUC. See for example page 4 of <http://eeb.org/publications/81/circular-economy/33789/pops-in-the-circular-economy.pdf>

3.3. EU's rules on end-of-waste are not fully harmonised, making it uncertain how waste becomes a new material and product

Our rules, case law and years of experience establish when a good is no longer a good and has become waste. When that happens, EU waste legislation applies. The EU waste rules are stringent in order to protect human health and the environment. In a circular economy, materials should only stay in the waste phase temporarily as the aim is that they should be recovered and reintroduced into the economy to replace primary materials. In most cases, in order for this to happen, materials which have been recycled should no longer be considered waste.

For waste to cease to be waste, it has to meet the so-called 'end-of-waste criteria'. For some waste streams such criteria have been set at EU or national level. However, the scope of these rules and clarity on how they operate is lacking. The complexity of waste streams, recovery processes and recovered materials means that end-of-waste criteria that are applicable to whole waste streams are not easy to establish. Consequently, many recovered materials are traded and used in the absence of established end-of-waste criteria and therefore under unclear legal circumstances and without transparency.

Example: In the targeted consultation, the metals and the electricity industries reported difficulties in determining the waste or product status of materials such as coal ashes, copper slags or ferromolybdenum slags. Different criteria are applied across Member States, and even among different regions. This leads to problems in trans-border transport of these materials and sometimes makes it impossible to derive useful resources from these materials, some of which are waste generated in quantities counted in millions of tonnes per year⁷.

Uncertainties about the status of a material as a waste or a product is also an issue for authorities which often face difficulties in determining whether waste or product legislation applies. This situation arises for example in deciding whether recycled PVC containing DEHP should still be considered waste or whether it should be treated as a product.

3.3.1. Objective

We must enable a more harmonised interpretation and implementation of end-of-waste rules across the EU to further facilitate the use of recovered material within the EU.

3.3.2. Planned actions

The Commission will facilitate closer cooperation between existing chemical and waste management expert networks and prepare an on-line EU repository for all adopted national and EU end-of-waste and by-product criteria. It will also launch a study to gain a better understanding of Member States' practices as regards implementation and verification of provisions on end-of-waste as a basis for possible guidelines.

Question:

How and for which waste streams should we facilitate more harmonisation of end-of-waste rules?

⁷ See Eurometaux: <https://www.eurometaux.eu/media/1634/eurometaux-response-chemicals-products-waste-interface-stakeholder-c.pdf> and Eurelectric: http://www.eurelectric.org/media/340047/eurelectric-interface_consultation-final_07072017-2017-2430-0001-01-e.pdf.

3.4. Rules to decide which wastes and chemicals are hazardous are not well aligned and this affects the uptake of secondary raw materials

The production and use of hazardous chemicals and products are subject to strict EU rules adopted to protect workers⁸, citizens and the environment from harm. When a chemical is determined to be hazardous, it is classified as such, which leads to clear obligations for operators to ensure their safe handling.

Waste management is similarly governed by EU rules adopted with the same objectives in mind so that hazardous waste is treated without harming the environment or human health. However, the two sets of rules are not fully aligned. We have seen situations where the same material, containing a hazardous substance, may be considered hazardous or not hazardous depending on whether it is waste or a product. This discrepancy means that it cannot be assumed that materials that re-enter the economy resulting from the recovery of non-hazardous waste will necessarily result in a non-hazardous product.

The way rules on classification of waste are implemented and enforced has important consequences on future waste management choices, such as feasibility and economic viability of collection, recycling method or the choice between recycling and disposal. Such discrepancies may have an impact upon the uptake of secondary raw materials.

Example: Lead metal has a different classification depending on its waste or product status. Lead metal waste from construction and demolition activities is listed as non-hazardous waste in the European List of Waste. Lead metal as a product is classified as a hazardous substance under the EU legislation on classification, packaging and labelling of chemicals (CLP – Regulation) due to its harmful effects on reproduction.

Another example is the case of flexible PVC waste containing certain additives, where often waste operators (mis)classify this waste as non-hazardous although the resulting recovered product will be classified as a hazardous chemical mixture under the CLP Regulation.

3.4.1. Objective

We must ensure a more consistent approach between chemicals and waste classification rules.

3.4.2. Planned actions

We are about to publish a guidance document on waste classification to assist waste operators and competent authorities to have a common approach to waste characterisation and classification. We will also promote the exchange of best practices with regard to test methods for the assessment of substances as concerns the hazardous property HP 14 ‘Ecotoxic’ with a view to their possible harmonisation.

Question:

Should we further align the rules on hazard classification so that waste would be considered hazardous according to the same rules as products?

⁸ Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work; Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work; Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work.

4. CONCLUSIONS AND NEXT STEPS

These four issues constitute important barriers for the circular economy. From the input received, it is clear that there are challenges with the practical application on the ground, in terms of the limited availability of resources and knowledge as well as regarding the coordination between the various actors at local, national and EU level.

Our analysis also shows that there are legal challenges. The longer term aspiration must be to achieve full coherence between the laws implementing waste and chemicals policies. This will help to achieve the aim that materials are safe, fit-for-purpose and designed for durability, recyclability and have a low environmental impact. Goods should be designed, manufactured, traded and recycled with minimal use of substances of concern to facilitate reuse in a way that maximises the materials' economic benefits and utility to society while maintaining a high level of human health and environmental protection.

The policy options in the Staff Working Document cover both the immediate issues and those that can only be solved over time. The document includes several options per issue and invites reflection on the appropriate balance between the overall long term benefits from circular use of these materials and the overall long term health and environmental concerns relating to substances present in that material.

We need to clear the path towards a circular economy in the Union. We have some tools readily available that can diminish some of the frictions, but we need more evidence and input from all over the EU to ascertain how we can best tackle some of the wider-ranging issues.

We invite the European Parliament, the Council and the Committee of the Regions and interested stakeholders to engage in the discussion and to take positions on the identified challenges so we can define a path forward to a truly circular economy.

The ambition is that, by the end of the mandate of this Commission in 2019, the promised actions are already on track and are underpinned by solid evidence. The new studies we are launching as well as the consultation in which all stakeholders are now invited to participate will therefore have an instrumental role to play in bringing our work forward.