

Cefic feedback to the targeted consultation: “Analysis of the interface between chemicals, products and waste legislation and identification of policy options” – 12th of April

Caveat - This response has to be read together with Cefic’s reply to the Roadmap:



Cefic feedback to the Roadmap on the

We confirm our views expressed in our feedback to the Roadmap, that it is a welcome initiative to analyse and address potential barriers in the uptake of secondary raw materials in the economy.

We want to underline that a further transition towards a circular economy will require an approach in which one prioritises those material streams and those applications, that bring value. One important criterion to consider upon prioritising is to distinguish fast moving consumer goods and the long-life articles. As a rule of thumb, in case of the fast moving consumer goods, these mainly concern packaging, the composition is well known and the chance to have substances of very high concern (SVHC) present is rather low or in some case very low. Success stories on recycling exist in this area, e.g. PET. Long-life applications which may contain substances for which no restriction existed when they were first put on the market, but for which a restriction has since been put in place under EU law, are more challenging to recycle. And even for fast moving consumer packaging, levels of recycling could still be increased by e.g. better separation between food-contact approved materials and non-food.

In answering to this targeted consultation, Cefic will further detail these examples and we are willing to make further suggestions, as we believe they could serve as a model to be adapted towards each relevant waste stream and/or relevant application.

Regarding the issue on “insufficient information” we see in particular a role for an enhanced supply chain collaboration, facilitated via the channels of sectorial associations in case of existing information gaps when (parts of) post-consumer waste is being brought back in the economy.

Regarding the second issue, on the presence of substances of concern in recycled materials and in articles made thereof; Cefic is in favour of a case-by-case risk-based approach, application oriented, within the framework of existing chemical legislation, provided the use in the application under consideration is safe. Additional supporting guidance derived from REACH guidance, for informed decision taking in case of recycling, with due consideration to the presence of substances of concern including legacy chemicals might be useful to indicate circular economy inspired options.

Regarding the third issue, on “Uncertainties about how materials can cease to be waste”, Cefic calls for a harmonized, pragmatic approach, oriented towards removing all barriers towards a circular economy.

Regarding the fourth issue, on the difficulties in applying EU waste classification methodologies and impacts on the recyclability of materials, Cefic is of the opinion that a risk-based approach, hence a methodology not strictly relying on hazards, could aid in transitioning towards a circular economy.

Cefic would like to underline that to solve the so-called problem areas, a sustained dialogue within and across value chains is our recommended way forward. The chemical industry, as well as other industries, have already expertise in such value chain collaborations. **We would therefore like to propose to the Commission to organize a value-chain stakeholder workshop to learn from each other and develop further thinking on the role value chain.**

Finally, we would like to reiterate that further investments in recycling capabilities, which are now very heterogeneously spread over Europe, are needed, alongside a continued development of new technology routes, waste management systems and methods (mechanical and chemical recycling, improved sorting techniques, improved analytical methods, improved collection (reverse logistics) ...). These developments can be stimulated through value chain collaboration and partnerships with recyclers, retailers and product designers to foster innovation focusing on information transfer through to recyclers and improving recyclability.

Issue #1: “Insufficient information about substances of concern in products and waste”

Cefic acknowledges the existence of a possible knowledge gap in information upon recycling of waste and, in particular, post-consumer waste derived from articles. In this case the waste holder does not have an easy access to a full set of information on the content of substances of concern in the discarded articles. For substances and mixtures, the EU legislation foresees a flow of information on the content of SVHC.

However, it is also important to realize that the knowledge gap at the recycling stage about the presence or absence of some substances will not be solved simply by increased information provided through the value chain, because it results also from the lack of information related to imported articles as well as uncontrolled contamination during use, collection and sorting phases. Examples of those uncontrolled contaminations are: using spare parts for repairing, glue used to repair broken items by consumers, unintended uses, stickers, labels, inks etc. Increasing information requirements in the value-chain will not address this problem.

To close information gaps, the recyclers should undertake an assessment of the products they want to place on the market for the intended applications to ensure compliance with REACH, CLP and/or sector regulations that are applicable.

In parallel, and for those waste streams where recycling has a very high potential/value and represent high quantities, Cefic proposes the establishment of value chain platforms, including the recyclers, facilitated via the channels of sectorial associations to exchange information about the presence of substances in the products and support the risk assessment.

In this respect, we would like to draw the attention to the following examples of successful value chain collaboration throughout the value chain in view of a transition towards a Circular Economy. Examples are all related to post-consumer waste streams. It is important to note that these examples cannot be easily applied on all value chains so would need to be considered on a case-by-case basis. Production waste being handled mostly in a B2B relationship with an easier access to information and are not the focus.

- [SDSR \(safety data sheet for recyclates\) tool](#): For example, a collaboration by the plastics value chain (raw material producers, converters and recyclers) started helping recyclers to prepare safety data sheets for the recycled materials that these recyclers place on the market. This tool is fed with standard products compositions provided by material producers and plastic converters, on the basis of a worst-case scenario; the tool can also take into account additional, more accurate, information on composition coming from actual measurements made by the recyclers themselves. These safety data sheets give information on the content of hazardous substances, including substances of very high concern, contained or potentially contained in the recycled materials and enable an assessment of the risk related to the use of the recovered material and where necessary recommend adequate risk management measures.
- [GADSL \(Global Automotive Declarable Substance List\)](#): An ongoing dialogue and information flow within the global automotive supply chain, including automobile manufacturers, tier suppliers and material suppliers, has been established, aiming at improving quality, safety and reduction of environmental impact throughout the life cycle of the vehicle. GADSL is a good illustration of a voluntary initiative by the value chain to respond to regulatory requirements, in this case laid down e.g. in the End-of-Vehicles Directive. It needs to be added however, that not every application needs the same level of detail of information. Disclaimer: GADSL functions in the automotive industry given the structure of this industry; in a more diversified market, this principle may not function the same way.
- [IMDS \(International Material Data System\)](#) is a global data repository that contains information on materials used by the automotive industry, including information on chemicals. In the IMDS, all materials present in finished automobile manufacturing are collected, maintained, analysed and archived, with due involvement of all actors in the value chain (including the chemical industry). IMDS facilitates meeting the obligations placed on automobile manufacturers, and thus on their suppliers, by national and international standards, laws and regulations.

Consulting and using the system by recyclers is possible in principle. Mode of data transmission needs to be agreed by recyclers, OEMs and data owners. Disclaimer: IMDS works in the automotive industry given the structure of this industry. In a more diversified market, this principle may not function the same way.

- [EuCertPlast](#): EuCertPlast is a European wide certification aimed at post-consumer plastics recyclers. The aim is a.o. to increase the transparency of the recycling plastics industry, to ensure the traceability of collected post-consumer waste, and to help fulfilling REACH requirements and food contact compliance for recyclers
- Similarly, Vlaanderen Circulair submitted a project to the New Plastics Economy Initiative of the Ellen McArthur Foundation to promote the [QA-CER certification scheme set up by BQA](#) in close collaboration with VKC (Vlaams Kunststofcentrum). QA-CER allows to certify products, with due attention to the composition: a chemical analysis is needed in combination with other traceability measures.

- [European Polymark research project](#): More than 80 experts from the PET value chain, brand owners and researchers developed a new technology enabling the identification and sorting of polymers, focusing on PET as a start, in the high-value plastics waste stream. The project focused on three technical developments:
 - **Development of the Chemical Marker**
 - **Development of the Spectral Identification Technology**
 - **Development of the Polymark Industrial Scale Sorting System**

This approach could be a way forward, for a well-organised and specific waste stream, like PET, but will not be a solution for complex articles and should in no case interfere with confidential business information.

Issue #2: “Presence of substances of concern in recycled materials and in articles made thereof”

It is fundamental to maintain a level playing field between virgin and recycled materials. “Safe use” is and will continue to be our guiding principle; products made from recovered materials should ensure the same level of safety for intended use, as for those made from virgin materials. In the opinion of Cefic, REACH and CLP legislation are appropriate and should remain the “guardian-legislation” at the entrance of any new material cycle. **We recommend to the Commission to stimulate a better integration of circular economy thinking into the implementation of existing legislation through providing further clarifications and guidance.**

In this respect it should be clear that a pragmatic risk-based application of REACH is necessary to make circular economy successful.

We do however want to highlight two additional challenges in this respect; 1) the issue of the legacy chemicals¹ and 2) the issue of imported materials.

Indeed, some waste streams contain substances for which no restriction existed when they were first put on the market, but for which a restriction has since been put in place under EU law. These substances are often referred to as “legacy chemicals”. In case of plastic waste streams e.g., these waste streams do represent a small part of the waste currently being recycled.

In addition, imported articles, produced outside Europe, can lead to the presence of substances of very high concern that will contaminate particular waste streams for a considerable period of time.

It is thus necessary to adopt a perspective of a global flow of materials that ends up in our European recycling systems. We therefore recommend an EU study on imported articles, to help to identify priority value chains that need to be addressed and identify which measure such as restriction could be implemented to limit the entry of “contaminated” articles.

¹ Legacy chemicals are chemicals inherited from past practices and now present in waste

Cefic considers the example of VinylPlus a good example of value chain collaboration with over 200 companies working together towards an increased circularity, based on a thorough impact assessment balancing environmental, economic and social aspects².

In due respect of the following two principles

- level playing field for primary and secondary raw materials with regards to chemical safety;
- appreciation of potentially different exposure profiles for virgin and recycled materials in cases of differences during their use phases;

Cefic suggests following practices to keep more secondary raw materials circulating in the economy:

- Balance design for performance and design for recycling: Consider to integrate as early as possible and appropriate, at the design stage of a product, end-of-life considerations, including collection systems, in the context of a Circular Economy. This should aim at strengthening its life cycle thinking.
- Allow for restriction decisions to be adapted on a case-by-case basis to the use of recycled material, implying that the use of secondary raw materials can be for different applications with different exposure profiles
- Redirecting recycled materials, that do not reach a virgin specification, to other non-sensitive applications where exposure does not cause a concern, is another way to safely increase the amount of secondary raw materials in the economy.

Issue #3: “Uncertainties about how materials can cease to be waste”

The practicalities of managing post-consumer articles and industrial process waste are significantly different. It may therefore be appropriate to consider these waste types separately when considering options.

In the long run, Cefic argues that to ensure a smooth transition towards a Circular Economy, the EU should move from a waste- to a resource- oriented thinking. This will thus require 1) removing uncertainties related to the end-of-waste statute which suffers from to a non-harmonised interpretation at Member State level, 2) improving by-products concepts and the definition of waste and 3) removing barriers in product legislation prohibiting certain material streams and by-products from further use.

Cefic is willing to discuss this issue further and illustrate it with examples.

² http://ec.europa.eu/smart-regulation/impact/ia_carried_out/docs/ia_2011/sec_2011_0634_en.pdf

#4: Difficulties in applying EU waste classification methodologies and impacts on the recyclability of materials

Production waste: The requirement to classify materials used in manufacturing processes – for example acids, catalysts and solvents - as waste when sent for regeneration and subsequent reuse to manufacturers of the original material, negatively impacts recyclability. This is because manufacturers either have to bring their facility under waste regulation and/or are subject to strict limitations on the amount of ‘waste’ material that they can accept to process. With appropriate safeguards placed in the operating permit at the manufacturing site carrying out the regeneration, the material could remain subject to product legislation throughout the time it remains within this effectively closed loop.

There are different and distinct challenges in applying waste classification methodology based on product legislation, namely CLP, to waste products and articles and to manufacturing process residues, air & water pollution abatement residues and contaminated soil. Products and articles are manufactured to a specification with known constituents and concentrations and as such, classification using CLP is simple. For non-homogenous wastes the challenge is that these are often complex “mixtures” in which constituents and their concentrations vary and in some cases have been transformed by virtue of the situation that has caused them to be produced, for example degradation in the case of manufacturing processing aids, contaminants in soils, lubricating oils etc.

It is important to balance the level of analytical effort required to determine exact substances and concentrations in the waste to enable precise application of CLP vs the level of analytical effort to determine whether the waste has a hazardous property, particularly for wastes where the level of complexity of composition is likely to severely limit potential for recycling,

Indeed, applying CLP criteria when classifying waste leads to situations whereby articles previously compliance before placement on the market suddenly risk classification as hazardous waste. This introduces additional requirements (and cost) on the (transborder) waste transport and recycling, and the placement on the market of the recycled material. It would therefore be desirable to consider a risk-based approach to keep valuable resources in the economy.

It is also important to note that the presence of certain hazardous properties and related classification does not necessarily cause a negative impact on the ability to recycle a material (e.g. irritation hazard of one substance, may not necessarily lead to an irritation from the recycled substance (as different structure / format and different use), even though the recycled substance/article/mixture may still contain the primary substance. Due consideration should be given to the concentration, state (solid, liquid, gas) and solubility of the substance of concern in the material, as well as the intended uses (exposure) and thus safety of the recycling processes.

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About Cefic

Cefic, the European Chemical Industry Council, founded in 1972, is the voice of 29,000 large, medium and small chemical companies in Europe, which provide 1.2 million jobs and account for 14.7% of world chemicals production.