

From:

Subject:

Date:

Attachments:

Followup / Conference call with EuRIC on the interface between waste and chemicals / 24 June

mardi 14 juillet 2020 18:48:39

[image003.png](#)

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[4_EuRIC_brochure - Sound Management Of Chemicals In Recycling.PDF](#)

[Technical Paper on the SCIP Database - final.pdf](#)

[LCA report Climate Savings Tyre Recycling Into Infill_Final.pdf](#)

[Environmental Benefits Tyre Recycling Infill Artificial Turf .pdf](#)

[Protecting safe PVC recycling EuRIC Statement.pdf](#)

[PressRelease Plastics Recycling COVID-19Crisis.pdf](#)

[PressRelease Plastics Recycling COVID-19Crisis Separate Annex Price Flowchart...pdf](#)

Importance:

High

Dear [REDACTED] dear Participants of the call with EuRIC on the interface between waste and chemicals,

First of all, we would like again to thank [REDACTED] for organizing the call with EuRIC on the interface between waste & chemicals on 24 June and convey our apologies for the late follow-up.

We greatly appreciated the opportunity to play “ping pong” on such complex yet instrumental topics for the success of the circular economy.

Please find below a feedback on the most important items which were discussed, in particular a more consistent and predictable approach in assessing the toxicity of materials used in circular value chains.

The new Circular Economy Action Plan (CEAP) calls for *Enhancing circularity in a toxic-free environment* as one of its targets. Such an objective can obviously be supported provided it is soundly defined for various reasons:

- First, because ‘trust’ is instrumental to the success of circular value chains & recycling in particular shall not be associated with the perpetuation of substances which do pose a risk for human health and or the environment based on realistic exposure scenarios;
- Second, because thanks to technical progress, detection limits achieved in laboratories enable to detect trace elements of substances of concern whose hazardousness need to be assessed not solely based on their intrinsic properties but on their concentration, and the properties of the materials in which they may be found;
- Third, because the input into recycling facilities is *per se* highly heterogeneous – contrary to ores extracted from a mine whose composition and yield is determined at exploration stage, well before the opening of the mining operation itself – but the output of recycling needs to meet specifications set by customers and sometimes standardized in EN standards, both in terms of mechanical & chemical properties;
- Fourth, because linked to the above and depending on the recycling step and customers’ will when end-of-waste criteria are set up (either EU-wide or nationally), the input is always a waste but the output can be a product which hence has to comply with product legislation (recycling companies often need to comply with both waste and product legislations, hence the importance of improving the interface between both).

Approach to assess toxicity be it in waste or products

Often risk vs. hazard-based approaches are oversimplified and systematically opposed. As outlined in EuRIC Brochure, the risk is the possibility of harm arising from a particular exposure to a chemical substance. In particular terms, in waste management and recycling the risk, i.e. the probability that a substance contained in recycled materials has any harmful effect on human health and the environment has to be taken into account in order to take into consideration the intrinsic properties/physical form of the material in which that substance may be found and its bioavailability, and depends on the different exposure scenarios. For instance in the case of decaBDE and contrary to other flame retardants (be them brominated or not), the substance has a melting point (high melting point of decaBDE (between 290 to 306°C) higher than most plastics in which it has been used hence reducing its bioavailability to almost zero, in all the array of permitted uses for which thermoplastics containing legacy decaBDE have been marketed.

In addition, it is important in the assessment carried out when restricting a substances to take into consideration:

- i) The impacts alternative options may have on the environment and human health (incineration, landfilling, substitution by extracted materials) and their availability in terms of capacity and hence costs, since setting aside the socio-economic impacts, energy consumption, GHG emissions and land contamination may be much higher;
- ii) Scenarios based on best available (treatment) techniques proven and used at industrial scale. Many promises are being made based on new separation techniques (some of which being developed by our Members – directly or with their contribution). Yet, there is a very significant difference in terms of feasibility between pilot projects and industrial facilities demonstrating the technical and economic feasibility of separation processes, as experiences has proven over the last decades.

In that respect, EuRIC very much support the tiered approach adopted in the report “CLEaR” (Clean material Recycling project) drafted by RIVM and Ramboll for the European Commission, presenting a range of relevant aspects to assess when restricting a substance. We underline that a risk based approach is also very relevant for waste classification purposes.

Taking the example of lead in PVC, alternatives to well-framed recycling are more harmful for the environment and, at the moment (EuRIC counts among its Membership PVC recyclers), alternatives to mechanical recycling have yet to be proven. The chlorine content in PVC can harm pyrolysis/gasification processes. The only chemical recycling company we know, Vinyloop Ferrara, had to stop its operations in 2018. A list of the mainly economic reasons, such as the absence of economic incentives for using recycled PVC, that lead to the operation stop can be found in this [report](#).

Circular economy and recycling most end-of-life products

As highlighted during the call, speeding up the transition towards a more circular economy does not mean at all that everything shall be recycled. Yet some stakeholders with vested interests do use the need to improve the interface between waste and chemicals in legislation to incidentally advocate for entirely linear models (take-make-dispose) at the expense of properly functioning circular value chains. Addressing the interface between chemicals, products and waste legislation is essential to provide the certainty needed by not solely the recycling industry but

value chains willing to invest in innovation and capacity building to transition towards a more circular economy.

The yield of recycling processes very much depends of the quality of the inputs, hence the importance of separate collection to avoid cross-contamination in particular of organic materials (which are comparatively far more sensitive than non-organic materials to cross-contamination), the intrinsic properties of the materials processed (while metals can in theory be indefinitely be recycled, it is not the case of paper fibers, plastics, etc.) and obviously constraints set by legislation and customers in terms of mechanical and chemicals properties. As a result, regardless of the complexity of the recycling process used, some residues are being produced. High material recovery rates usually results in the production of residual waste having a high calorific value, which are more costly to recover by waste to energy plants and co-incineration and add cost to recyclers paying for that recovery through waste to energy. There is a need in particular for the waste to energy industry to have a more evenly spread capacity across Europe and to adapt to a predicted drop of unsorted waste / mix plastics waste (should legislation be properly enforced) to residual waste from material recovery processes with a much higher calorific value.

Regarding unrecyclable products or materials such as for instance PVC cables containing DEHP, priority shall be given to eco-design to ensure these products last longer, are fit for repair & re-use and ultimately for recycling.

The vast majority of products placed today on the market are everything but designed with their end-of-life phase in mind. EuRIC strongly supports

- the ambition of the new CEAP to both rely on eco-design regulations for Energy-related Products by strengthening the resource efficiency dimension whenever revised and of (a) legislative initiative(s) to fill in the gaps be it for the product categories not covered by eco-design regulations.
- the Commissions' Ecodesign and Energy Labelling Working Plan for 2020-2024 where ecodesign covers both aspects, recyclability as well as recycled content:
 - ✓ On recyclability: recyclers experience an increasing difficulty to separate the different materials contained in products (because of e.g. gluing and welding). We consider that a parallel needs to be drawn systematically between depollution, dismantling, treatment obligations set for instance in sectorial waste legislation (WEEE / ELVs / Packaging) eco-design requirements (for instance that eco-design resource efficiency obligations effectively removal obligations set in the WEEE Directive).
 - ✓ On recycled content: we strongly support the proposal to increase the proportion of recycled materials in products. EuRIC has issued a number of substantiated paper supporting recycled content in various end applications.

We are or will be following-up bilaterally on recycled content measurement as well as end-markets for materials from end-of-life tyre recycling briefly touched upon during the call.

We take the opportunity to attach to that email some of our [latest statements](#), namely:

- EuRIC Brochure on the sound management of chemicals in recycling
- EuRIC / PRE joint technical paper on the SCIP Database
- EuRIC position on lead in PVC
- LCA of the environment of end-of-life tyre treatment options: material recycling vs. co-incineration highlighting the environmental benefits of ELT recycling into infill materials
- Statement on urgent measures needed to support the plastics recycling industry further to the COVID 19 crisis and incidentally demonstrating the efficiency of incentives.

Please don't hesitate to get back to us regarding the topics briefly outlined above or discussed during the conference call.

With best regards,

[REDACTED]

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