



## IPC Briefing on the EU Circular Economy Initiatives

### Possible Impacts on the Electronic Interconnection Industry

October 2017

#### Executive Summary

The EU initiatives on Circular Economy are aimed at improving waste management, recycling, and reuse across Europe, in order to minimize the products' environmental impact.

They are likely to impact the electronics industry in three main areas:

- **Chemicals in Waste** – Main concern related to high cost of operations:  
Mandatory substitution of REACH substances of very high concern may pose challenges to the entire supply chain.
- **Repair and Reuse** – Main concern related to IPR and competitiveness  
OEMs may have to provide spare parts and repair information to any repair and reuse operator. Some IPC members, on the other hand, may benefit from the broader availability of spare parts.
- **Extended Producer Responsibility (EPR)** – Main concern related to increased red tape and extra costs  
Due to the new requirements for EPR schemes, OEMs and EMS may have to pay disproportionate fees compared to the real cost of recycling of their products. Fees may also differ from country to country, leading to an increased administrative burden.

#### The Circular Economy Package

The European Commission published a [comprehensive Circular Economy Package](#) in December 2015. The aim of the package is to introduce measures to encourage waste prevention and improve the reuse and recycling of materials to reduce the environmental impact. It includes four legislative proposals on EU waste policy (the so called "Waste Package"), which address the themes of waste framework, landfill, packaging and waste electrical and electronic equipment (WEEE). In addition, it includes a non-legislative [Action Plan](#) which proposes measures in the field of product design for promoting waste reduction, recycling and reuse.

In the Action Plan, the main initiative of interest for IPC Members is the interface between chemicals and waste. In the Waste Package, the main relevant legislative proposal for IPC Members is the Waste Framework Directive (WFD), which introduces higher recycling targets for municipal waste, new provisions on repair, reuse and Extended Producer Responsibility (EPR).

#### Chemicals in Waste



One of the key areas related to electronic waste recycling is the treatment of hazardous substances. The EU is addressing this issue through three parallel initiatives:

- On the production side, the EU has recently amended the rules that restrict the use of certain hazardous substances in electrical and electronic equipment.
- On the side of the product's end-of-life, the Commission is analyzing policy options to address the interface between chemicals and waste.
- Finally, this approach is reflected in the European Parliament's report on the WFD proposal, which aims at progressively substitute the REACH substances of very high concern (SVHCs) in products.

### Revision of RoHS Directive

On 3 October 2017, the European Parliament gave its final approval to the review of the scope of the Directive on Restrictions of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS Directive). The amendments extend beyond the current 2019 deadline the possibility to resell electronic equipment and spare parts containing prohibited substances, which were put on the market before the respective substances were prohibited. This is a good development for the industry as it will facilitate repair, replacement of spare parts, refurbishment and reuse of electrical and electronic equipment.

### Interface between chemicals and waste

The European Commission is currently analyzing policy options to address the interface between chemicals, products, and waste legislation, including how to reduce the presence and improve the tracking of chemicals of concern in products, to ensure that their recycling is safe. The Commission will consider options to improve information about SVHCs in products and waste, as well as options to facilitate the management of SVHCs found in recycled materials. The objective is not only to promote non-toxic material cycles, but also to enhance the uptake of secondary raw materials, by making them safer to reuse in food packaging for instance. The Commission is expected to publish a communication on the interface between chemicals, products and waste by the end of 2017. This work will also feed into a future EU Strategy for a non-toxic environment, which is expected by 2018 and will aim at replacing dangerous substances with non-chemical and sustainable alternatives.

### Waste Framework Directive (WFD)

Having drafted their respective positions on the WFD, the European Parliament and the Council of the EU are now negotiating the final version of the text, together with the European Commission. The agreement by all three institutions will be needed in order for the text to become law.

On chemicals, the European Parliament's proposed amendments to the WFD require Member States to use economic and other measures to progressively substitute REACH SVHCs, if there are suitable alternative substances. To that end, the supply chain would have to ensure the communication of SVHCs to consumers and waste treatment operators - a topic that is also likely to be addressed in the future strategy for a non-toxic environment. The Council of the EU is currently opposing this drastic substitution policy proposed by the European Parliament and is instead supporting the development of measures to reduce the presence of hazardous substances in materials and products. What form these measures would take is still to be determined.



### Impact on IPC Members:

*Substitution of SVHCs can be a significant challenge in the electronics industry. This may entail high costs as the evaluation of the classification and suitability of the potential alternatives is time-consuming and requires long-term testing. Depending on the modality by which this issue will be addressed in the WFD (and possibly in the upcoming EU Strategy for a non-toxic environment), IPC members may be subject to stricter requirements in the coming years.*

*Furthermore, there is a risk that the new rules in the WFD duplicate or even contradict requirements set out in already existing EU chemicals regulations, which would lead to increased red tape and uncertainty. To solve this issue, the Commission is currently investigating on the interface between chemicals and waste.*

*On the other hand, the RoHS revision that proposes lifting of restrictions on spare parts beyond 2019 would be beneficial for IPC members, as it would make it easier for OEMs to both reuse and recycle spare parts.*

## Repair and Reuse

“Planned obsolescence” is the alleged intentional production of goods with short economic lives and it is seen as one of the main obstacles to a circular economy. The main consumer concerns connected with planned obsolescence are linked to high repair costs, repair, upgradability or interoperability with other devices and unavailability of spare parts. The European Parliament has been particularly vocal on this aspect. In its position on the WFD, it proposed a requirement for Member States to ensure that any repair and reuse companies can access instruction manuals, technical information, and spare parts. The Council is currently opposing this measure, in line with the industry’s position, which sees it as possibly creating unacceptable liability and intellectual property rights (IPR) issues for producers while also inviting fraud and counterfeit products to be placed on the market.

### Impact on IPC Members:

*Any mandatory measure on spare parts and repair information is likely to impact IPC members in the areas of IPR, counterfeiting and competitiveness.*

*Firstly, for some OEMs the obligation of providing spare parts and repair information can have IPR implications, which need to be carefully considered. Secondly, this obligation may create unreasonable liability, as OEMs would not be able to control the repair operation and might be made liable for any unsatisfactory repair. Thirdly, this measure would facilitate fraud and production of counterfeit products.*

*On the other hand, IPC members that operate downstream the production process might benefit from the broader availability of spare parts.*

## Extended Producer Responsibility (EPR)



Within waste management, EPR is an environmental policy approach which extends the producers' responsibility to cover the end-of-life treatment of their products. It seeks to reduce the environmental footprint of products throughout their life cycle, from production to waste management.

The Waste Package seeks to introduce minimum operating requirements for EPR schemes, make them compulsory for a number of products, and harmonize them across all EU Member States. The objective is to reduce costs and enhance performance by facilitating separate waste sorting, quality recycling, and access to secondary raw material. Electronics are already subject to EPR under the Waste electrical and electronic equipment (WEEE) Directive. The WFD would set new minimum operating requirements for such schemes, which may increase the costs for producers. The WFD proposes in particular that Member States make sure that financial contributions paid by producers to EPR schemes are modulated according to the costs necessary to treat their products at the end of their life. The European Parliament is pushing for the Commission to develop guidelines on how to define the criteria for establishing such modulated fees.

#### **Impact on IPC Members:**

*If the proposed modulated fees will not reflect accurately the end-of-life cost of recycling products, but will be influenced by other factors, OEMs may have to bear disproportionate costs for recycling.*

*In addition, if modulated fees are not correctly harmonized between Member States, they will create increased red tape for OEMs and will not generate a sufficient scale of incentives to promote circular economy across Europe.*

## **About IPC**

IPC is the world's leading association for electronics manufacturing companies, representing the printed circuit board and electronics assembly industries, their customers and suppliers worldwide. With global headquarters in the US and regional offices in Europe and China, IPC's European membership includes large companies, such as Airbus and Siemens, but also a vast array of small and medium enterprises (SMEs).

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