DIGITALEUROPE

Important conditions and drivers for promoting the circular economy in the digital sector

Brussels, 31 July 2015

1. General comments and principles

DIGITALEUROPE welcomes the opportunity to contribute to the public consultation on the circular economy. We have structured our response along the broad lines of the consultation, highlighting the areas that are of particular importance to support the further development of the circular economy in the electronics sector.

The Circular Economy is composed of different building blocks, each of which needs to be promoted in coherence with the overall concept. DIGITALEUROPE therefore urges the Commission to build any regulatory or policy measure driving the circular economy on a set of coherent principles including:

- **The Life Cycle Thinking Principle.** Environmental considerations should be integrated at the stage of product design with the aim of reducing all relevant potential environmental impacts over its entire life cycle. At times products are maximizing trade offs (energy use during life versus resource used versus recyclability), the holistic approach should take precedence over measures addressing only an individual element. Consequences from acting on a specific part of the product lifecycle over the overall system should be systematically assessed to avoid rebound effects and maximise environmental benefits.

- **Balancing of Different Aspects Principle**. Balance environmental aspects, such as emission, resource, and potential toxicity aspects, between themselves as well as with other aspects, such as economic, technical and safety aspects.

- **Responsibility Principle**. Attribute responsibilities to those actors in the product life cycle that can be held accountable for the results.

- **Data Collection on all WEEE flows Principle**: capturing data on the circular economy properly is essential for achieving circular economy's goals. E.g. in order to measure the collection rate on WEEE correctly it is vital that Member States collect data on all flows of properly treated WEEE.

- **Competition Principle.** Allow market forces to drive competition in a technology neutral, level playing field, and avoid the creation of monopolies. Circular economy features should not stifle innovation capacities of the industry. Develop guidance to facilitate collaboration without breaching competition rules.

- **Global Harmonisation Principle**. Foster global harmonisation of environmental policies for products to avoid barriers to trade. A closed EU circular economy is undesirable as EU is part of a

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global economy.

The circular economy is already a reality in the electronics sector in the B2B space, but also trade-in solutions and authorised repair networks are emerging; Important for its functioning is the "repaired as produced principle" for spare parts. To promote the development of these circular economy elements we suggest building on current measures and developing new ideas to keep materials in circulation where it makes sense economically, environmentally and socially.

Also, information technology has the potential to contribute to a circular economy via for example sharing platforms, 3D printing or subscription services. Europe should make use of these new technologies and business models to maximize resource use.

In terms of the scope of the circular economy package, the focus should be on those value chains with the greatest resource consumption in order to contribute significantly to Europe's sustainability.[1] We suggest improving the process for a few selected products not regulated under RoHS & WEEE before rolling it out to a wider industry. Office and consumer electronic equipment such as desktops, laptops and printers are already regulated under RoHS, WEEE, Reach, ErP regulation. No need for further regulation as existing regulation has already maximized environmental parameters to a large extent, particularly when compared to other less regulated sectors.

Furthermore, DIGITALEUROPE has already expressed its members' concerns about the definition of resource efficiency indicators, as part of the 2012 European Commission consultation. We would like to reiterate here that an EU resource productivity target as lead indicator (measured as GDP divided by domestic material consumption) has a number of limitations, in that it does not account for the efficiency footprint of a material used outside the EU. It also risks sending the wrong signal if it is based on the assumption that imported goods have identical impacts to equivalent products manufactured within the EU. Equally important, general targets that do not take in account technical feasibility and industry specificities may not be enforceable.

Finally, capturing data on circular economy properly is also essential for achieving circular economy's goals. E.g. in order to measure the collection rate on WEEE correctly it has to be ensured that Member States collect these data on all flows of properly treated WEEE. Currently in most Member States the collection rate based on official data of WEEE separately collected by systems set up by producers is on average one third of electronic and electrical equipment sold. With the increasing value of WEEE, linked to the increasing raw material prices over the last five years, we are witnessing more and more WEEE collected and recycled by actors operating outside of the Producer controlled systems. These so called "complementary WEEE flows" are being collected by an array of actors, operating from small-scale door-to-door collectors to large-scale scrap dealers and recyclers. Research in several Member States has revealed that in addition to this one third managed by producer take back systems, on average, a further one third is also collected and treated by recyclers. So, in fact at least two thirds of the WEEE is being treated by recyclers.

[1] See for instance the Ellen McArthur report, Growth within: a circular economy vision for a competitive Europe, 2015.

2 Production phase

Following the Life Cycle Thinking Principle environmental considerations should be integrated at the stage of product design with the aim of reducing all relevant potential environmental impacts over its entire life cycle. At times products are maximizing trade-offs, the holistic approach should take precedence over individual elements.

General measures across product groups under the Ecodesign directive should be supported by standards to ensure measurability and market surveillance. For instance, disassembly times vary widely depending on the tools used, and training of the person doing the disassembly. Unless the same person is performing disassembly for all manufacturers, this is not an element that is measurable in a consistent way. Market access regulation is therefore not suitable; a market driven approach should be pursued. The same holds for prescribing under the ErP implementing measures if specific polymers are permitted or not in products; this can lead to unwanted bans of more sustainable or recycled material. Due to the diversity of plastics usage across industry and the very insufficient state of supply of recycled plastics a horizontal measure on plastics is inappropriate.

Also, information requirements are not a panacea; there is a lot of information available on manufacturers' websites that is not used. Requiring information on e.g. repairability in an ErP measure with the hope to enable the potential usage of this information by another (non obliged) industry cannot be a reason to incur additional costs in the regulated industry.

Trade-off needs to be systematically taken into account when considering regulation. Studies e.g. on tablets (Fraunhofer IZM, 2013) have shown trade-offs between recyclability and durability of products.[2] The same very likely applies to electronic equipment in general.

3 Consumption phase

Innovation is the core driver for our sector, which provides the backbone of the digital economy. ICT innovations are transforming and contributing to the wellbeing and enhancement of our society and environment, and are at the same time shaping consumer expectations.

Our industry is significantly engaged in repair / refurbishment and re-manufacturing activities which allow equipment to be repaired and re-used, and sometimes upgraded, resulting in longer lifetimes.[3] Early waste generation is prevented, in line with the waste hierarchy and circular economy principles. Moreover, when consumers choose to replace their device with a new model, the old device is likely not going to be simply discarded. Increasingly, such devices are sold through platforms such as auction websites, trade-in organisations or passed on to friends or relatives, creating a growing second-hand market where used devices and their parts are given a second life.

Reliability and durability of electronics continues to improve. Increasingly complex and multi-functional devices often require specific tools, skills, and even safety precautions to be repaired, requiring the services of professionals for good reason. Repair costs (spare parts, conformity to standards, reliability testing, supply

[2] http://www.izm.fraunhofer.de/en/news_events/tech_news/wie-recycling--und-reparaturfreundlich-sind-tablets-.html
[3] This point is further elaborated under chapter 3.1.

chain controls and the labour cost of the country where the repair is carried out) need to be lower than the cost of purchasing new products.

3.1 Remanufacturing & the trans border shipment of used goods

Trans-border shipments for repair allow complex capital equipment to be repaired and reused, and sometimes upgraded, thus giving the equipment a longer lifetime. Early waste generation is prevented, in line with the waste hierarchy. This is a contribution to the inner loops of a circular economy as defined by the Ellen MacArthur framework. If the electronics industry was to ship used products as hazardous waste, this would be an extremely burdensome operation costing up to 50% more compared to shipping as non-waste.

Used goods shipped for repairs are not waste and should never be classified as such. The repair / reuse model is already today an integral part of the circular economy. To make repair and remanufacturing economically viable electronics companies utilize regional repair facilities, often co-located with production sites. As supply and production chains of the electronics industry are global, so is repair and remanufacturing. The Basel Convention recently decided on a much-needed clarification regarding the trans-boundary movement of used goods versus e-waste. This will ensure the legitimacy of and clarify the conditions for shipments of used goods and parts for repair, refurbishment and testing. The Waste Shipment Regulation should be harmonized with the rules the EU accepted internationally in order to increase circular economy potentials.

The electronics industry agrees to the overall objective of stopping illegal shipments of e-waste. At the same time, the industry believes that testing, repair, refurbishment and reuse are essential practices that extend the useful life of products, reduce early and unnecessary e-waste generation, conserve material resources and advance sustainable business practices in line with the circular economy thinking.

Given that repaired products compete with new products, the increased cost for repairing these products, which for most companies involves utilizing a regional network of specialized repair hubs, would render their repair / refurbishment / remanufacturing economically unviable. Customer preference would be given to “replacement by new product”. Rather than being shipped and repaired, these products would be scrapped and recycled. This will result in a high volume of repairable or functioning equipment (both near-new and older) that will enter the waste stream prematurely and unnecessarily.

In the case of inner loop shipments that are controlled and traceable and under the framework of contractual agreements, it might be worthwhile considering exemptions for B2B shipments in Annex VI of WEEE II. An easier framework for inner loop shipments under such strong conditions would contribute to circular economy.

3.2 Green Public Procurement (GPP)

GPP can achieve market transformation towards a circular economy. When performed under competition and in compliance with the principles of the EU Public Procurement Directives, companies will be rewarded for their longstanding work to provide resource efficient products and services. However, it should be noted that a growing number of “green” purchase specifications do not meet the requirement of “unambiguity”, thus leading to increased administrative burden and at worse, arbitrary bid evaluations and contract awards. As the precondition for promoting green public procurement, we would urge the Commission to act upon the

following issues:

- Governments should continue to support and improve GPP in their national action plan as a driver for the circular economy. The criteria should be technically and economically feasible, as well as reasonable both for the (governmental) users and for the industry. Stakeholders should be duly consulted before setting them. By way of example, the Eco-label criteria for imaging equipment are technically unreasonable and unfeasible, hence no company can actually qualify for the label.
- The arbitrary ban of chemicals without a scientific assessment on the environmental benefits should be avoided; "Green screen" is an example of a method that can be used to move forward.
- Purchasing specifications should be developed for the same product categories following coordination, harmonization and market assessment principles.
- A follow up scheme to ensure contract compliance should be established.

3.3 Spare parts

The availability of spare parts guarantees longer product lifetimes and prevents waste generation, both core elements of the EU's resource efficiency policy and the EU waste hierarchy. Barriers preventing the use of used parts for repair, such as the consumer protection legislation in Rumania[4] and Hungary need to be removed.

The RoHS Directive foresees an exclusion for spare parts used for the service, maintenance, and repair of products already placed on the market before the entry into force of the substance restrictions. These derogations are referred to as the "repair as produced" principle and allow the prolongation of product lifetimes.

Alignment of the regulatory 'repair as produced principle' (as per RoHS and ELV Directives) across European regulations and in particular the delegated Ecodesign regulations, is essential to facilitate compliance, market surveillance, and the circular economy.

4 Developing a market for secondary materials

The EU chemical legislations are progressively banning or limiting the use of hazardous substances in products placed on the European market. This could pose a challenge for recycling products and reusing of the secondary materials because they may contain substances that are now banned. It is prohibitively costly to test plastics for chemical content at point of recycling. Therefore, for manufacturers to be confident that new products comply with new chemicals legislation, they may be required to exclude recycled materials. For example, if manufacturers of TVs wanted to be granted the EU Ecolabels, the products would be required to stop using recycled plastics.

A way to facilitate investment leading to better or more efficient recycling or re-use activities could be approaches such as the general Block Exemption Regulation (651/2014) which entered in force on 1st July 2014. Member States will be able to provide state aid to recycling and reuse companies that go beyond

4 See Art 11, para. 4 of the Rumanian Law No. 449/2003.

current state of the art.

Manufacturers are already using recycled plastics in various ICT devices. Declarations of the use of recycled plastics are found in the ECMA 370 Eco Declaration form and requirements on the recyclability, plastic marking and polymer composition of plastics are found in the Voluntary Agreement on Imaging Equipment.

Due to the diversity of mechanical requirements for plastics usage in ICT products and the state of supply of recycled plastics, a mandatory horizontal measure on plastics is inappropriate. Electronic products contain a large number of parts and materials and those parts are selected according to their application. For example, most of plastic materials in PCs are used as housing, while imaging equipment has many internal plastic parts that are structural and load bearing. Therefore, necessary grades differ depending on the nature and purpose of each part. For plastics used in small, integrated mechanical components the situation is yet again very different. Plastics used in customer facing applications (such as product chassis) have to meet particular cosmetic and mechanical requirements, which often eliminate the possibility to use material from recycled sources.

In some applications, the used polymer blends are complex (such as PC-ABS). For these blends there are too few reliable sources of recycled material. In addition, several applications (such as imaging equipment) require certain flammability classes of plastic parts, thus leading to higher costs when switching from virgin to recycled materials.

Moreover, there is insufficient supply of post-consumer recycled plastic in the market at present. Industry cannot currently expect a stable supply of recycled plastic. Therefore, imposing a minimum recycled plastic content represents an unreasonable requirement. Furthermore, there are quality issues such as colour and texture that can be prohibitive for wide applications.

To promote and increase the market for recycled plastics the following would be required:

- Ensure that high collection rates of WEEE continue and are measured through all WEEE flows and that proper treatment standards apply to all WEEE to ensure high quality of recyclates. Also increased collaboration between pre-processers and recyclers should be encouraged as well as producers and recyclers.
- Develop a positive communication on recycled materials and give the positive aspects more visibility (as “used” can have a negative connotation with consumers).
- Provide incentives for producers to use recycled plastics or other recycled materials via Green Public Procurement award criteria, awards, etc. when reasonably feasible and under the condition that the supply is of sufficiently high quality and secure. Horizontal measures on plastics should be avoided due to the diversity of materials and the uncertainties in the supply chain.
- Grant lower taxes on recycled materials and products (VAT) as recycled plastics needs to be cheaper than virgin material while providing a comparable level of quality.
- Support the development and uptake of recycling technologies. Recycling technology lags behind in terms of innovation. There is a need for research on degradation of plastics, sorting detection technology, bio plastics, recovering more challenging plastics (PC-ABC, PA) as well as on non-plastics recovery challenges and mixed streams.

- Support the establishment of a for recycled plastics market place in conjunction with recognised quality standards
- Re-evaluate hazardous substance limits to kick-start recycling projects.

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ABOUT DIGITALEUROPE

DIGITALEUROPE represents the digital technology industry in Europe. Our members include some of the world's largest IT, telecoms and consumer electronics companies and national associations from every part of Europe. DIGITALEUROPE wants European businesses and citizens to benefit fully from digital technologies and for Europe to grow, attract and sustain the world's best digital technology companies.

DIGITALEUROPE ensures industry participation in the development and implementation of EU policies. DIGITALEUROPE's members include 58 corporate members and 37 national trade associations from across Europe. Our website provides further information on our recent news and activities: http://www.digitaleurope.org

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