Position paper on the future circular economy package

The European Round Table of Industrialists (ERT) welcomes the European Commission's review of the circular economy package in connection with an industrial renaissance in Europe, merging the environmental and economic perspective in a vision for sustainable growth and increased competitiveness.

To this end, ERT would like to share the following considerations.

1. Circular economy – an important step forward

A circular economy aims to decouple economic growth from the use of resources by using them more efficiently. Products are designed and built as part of a value network where they will be used as long as feasible, then reused or refurbished, ensuring their highly efficient exploitation. In a circular economy, the more efficient use of products, components and materials enables more value to be captured, both through cost savings and by developing new markets or growing existing ones. A circular economy will function if products, components and materials find their way back into new product lifecycles. Circular economy requires the development of innovative solutions by looking at the entire value chain.

European industry has already made substantial efforts in improving resource efficiency. Circular economy can be an important further step towards an even more efficient handling of essential resources and towards new business models while safeguarding the EU's competitiveness and promoting growth as well as employment. For such a further step, an enabling European policy framework is a pre-requisite.

2. Environmental legislation

2.1. Ensure coherence across legislation dealing with waste and chemicals

Recyclers need access to adequate information on the chemical composition of input materials. This means that an adequate information flow along the value chain from producers to waste management companies has to be ensured. REACH and the Regulation on Classification, Labelling and Packaging of Substances and Mixtures (CLP) already offer appropriate tools.

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Regulators should maintain the demarcation between REACH and existing waste legislations. Waste is excluded from the REACH regulation. Every additional exceptional rule, change in definitions, framework or new definition of end-of-waste criteria in the EU Waste Framework Directive in order to exclude secondary raw materials (=recycled materials) from REACH, would jeopardise the competition between primary and secondary raw materials. For this reason, it is crucial that secondary raw materials are put on the market under equivalent regulatory conditions as primary raw materials. However, practical solutions in the framework of current REACH implementation should be developed if problems with recycling products in a particular case may arise.

2.2. Waste streams: focus on recycling quality and on reuse

The concept of circular economy has its limits when recycling leads to down-cycling, i.e. when a mixture of former high-tech materials leads to loss of all high-end properties and renders the resulting material useful only for a very limited portfolio of applications with inferior properties. A good example is the recycling of crystal clear transparent high-strength plastic films into thick wall compost containers.

Current end-of-use regulations appear to focus mostly on the volume or weight of products recovered rather than on the nature and criticality of the materials or the quality of the recovery strategy. In principle, one should expect market forces to provide enough incentive for the higher value approaches and materials to be pursued. However, this may not be the case in a transition period during which these regulations run the risk of promoting the recycling of low-value items rather than the adoption of more valuable approaches such as re-use and re-manufacture, or the use of more valuable, re-usable/recyclable materials. Thus, regulations for continuous improvement may deliver better outcomes than stating a minimum recycling target. Furthermore, future policy making should look at ways of providing awareness raising campaigns for citizens and the right waste infrastructure in the Member States by stimulating the reduction, collection and reuse of waste, and not just landfill avoidance further down the waste hierarchy.

With regards to collection and recycling schemes, significant differences can be observed across countries within the EU. Therefore, sharing best practices and knowledge on waste technologies across regions that consider local waste management infrastructure would be very valuable. Nevertheless, using the advantages of the EU internal market, like in product manufacturing of complex materials, is crucial and would e.g. entail sharing complex and capital intensive operations. Economies of scale, keeping costs associated with the recycling value chain at a reasonable level and avoiding suboptimal conditions are key.

Another possible interesting avenue is the development of an EU-level materials pooling platform, where partners agree to a common supply of selected materials that are better suited to circular economy models. This approach provides its participants with increased purchasing power and can thus help shifting the system.

Case study: refurbishing of medical products to close the materials loop
As healthcare budgets come under increasing pressure, care facilities are seeking ways to extend their resources without compromising on quality. The driving goal behind the Philips Diamond Select programme is to make first-rate medical equipment available at a lower cost by offering high quality refurbished, upgraded and tested systems with full warranty. The company is investigating how it can create an even greater residual value for Philips medical equipment and its customers, so it's easier to maintain, upgrade, refurbish or remanufacture products.

2.3. Review waste definitions and trade rules to develop the market

The same material with the same use can be classified either as a product, a by-product or a waste depending on where it is produced in the EU. Such lack of a harmonised definition of waste hinders recycling and recovery activities. For instance, chemical leasing is not much practiced in reality due to the uncertain waste status of materials sent back.

Consistent definitions and a uniform methodology to calculate recycling rates – needed to ensure proper monitoring by improved data collection and systematic reliability – should be the baseline for a successful implementation of circular economy. This should be consistent across all EC legislation and policy, as there have historically been inconsistencies which have resulted in less-environmentally preferable practices being adopted.

E-waste is the fastest growing waste stream. It can be considered as an 'Urban Mine' for recovery of raw materials. Therefore the collection of e-waste for this purpose should be incentivised. However, the main issue with e-waste is traceability. End-of-life material recycling is largely commercially driven and about two-thirds of e-waste is managed by commercial actors without involvement of producer responsibility schemes. Inadequately treated e-waste poses environmental and health risks as well as loss of natural resources. All e-waste from all actors handling it should be reported and monitored. The recovery and treatment obligations of the Waste Electrical and Electronic Equipment (WEEE) Directive should be applicable to all e-waste generated.

Import and export of valuable products and materials into and out of the EU need an improved level playing field. Consistent definitions and methodologies are lacking while international markets are constantly evolving and changing with the increasing penetration of goods and services (such as ICT) across the globe. Therefore, trading rules should be reviewed to facilitate such import/export while ensuring that export (of e.g. scrap for recycling out of the EU) is subject to comparable quality standards confirmed by common certification systems. The Basel Convention on the control of trans-boundary movements of hazardous waste and their disposal should be re-assessed to this end.

2.4. Lifecycle Assessment (LCA) to support the goal of climate change mitigation

Political decisions must take into account the entire value chain and the lifecycle of a product, instead of just considering the emissions during its production or its use phase separately. LCA-based policies will reckon the importance of the upstream industry as significant contributor to climate-friendly products and services downstream in the value chain.

In addition to manufacturing and use phase, the product end-of-life has to be considered. The overall target is to reduce land filling. With regard to the alternatives to land filling, relevant stakeholders in the waste management industry should be enabled to make an informed decision whether it is more sustainable to recycle waste or to recover its embedded calorific value in efficient energy-from-waste facilities. In this context, ERT would like to stimulate a debate on sustainability criteria to ensure the most appropriate recovery route for materials diverted from landfill (recycling, energy recovery, etc.), respecting the waste hierarchy as much as possible. The criteria should take into consideration elements such as: infrastructure, waste quality, market demand, after-treatment, etc., and should cover all three pillars of sustainability (economic, environmental and social aspects).

2.5. Eco-design to focus on the entire lifecycle impact

Product design optimisation can enable a high-degree of recycling and re-use of materials, ease re-manufacturing or repair of products.

Nonetheless, designing of products for waste reduction or recycling does not necessarily optimise environmental impacts. Recycling-driven change could have a net negative effect over the product's lifecycle. It may contradict the environmental and safety performance of products during the use phase. For example, reducing material complexity to improve recyclability may lead to over-engineering of materials resulting in increased weight, greater fuel consumption during the use phase and finally increased overall environmental impact. Thus, a focus on lifecycle impact is more suitable for material selection than a focus on end-of-life alone.

2.6. Closing the carbon cycle

A circular economy requires the development of innovative solutions bridging classical industry barriers. In addition to avoiding green-house gas emissions, the use of carbon can be a sustainable solution, if CO_2 can be reused as an available raw material in subsequent processes. The ultimate goal must be closing the carbon cycle completely. Thus, circular economy is a key element to address climate change.

Closing the carbon cycle requires not only local or piecemeal approaches, but an integrated system of processes, uses and infrastructure ensuring that carbon is used efficiently while overall CO_2 emissions are effectively avoided. This can be achieved by capturing CO_2 from other emission sources such as waste incinerators and making CO_2 again available as a raw material, e.g. as valuable feedstock for chemical processes where they can replace fossil raw materials such as crude oil or natural gas.

Closing the carbon cycle is a long term option for a specific part of our common climate change challenge. It is a grand design which only can be finished in decades. And it does not work on its own but is linked to other developments, namely building up renewable energy sources. However, individual building blocks are under development and can make contributions already on a much shorter time scale. Sufficient support is required to enable industry to continue this project of common European interest, e.g. supporting pilot projects aiming to reduce CO_2 emissions.

3. Economic and legal frameworks

3.1. Fiscal measures

Fiscal measures to enforce circular economy should be selected carefully. For example, any attempt to segregate between "renewable" and "non-renewable" products for tax incentive purposes is not supporting the development of good practices in sustainable management. Such segregation fails to account for material degradation and its impact on resource management, cost savings and society. The decision to use renewable or non-renewable materials for certain products should be left to the market. Furthermore, metals are not renewable but can be considered as permanent as they do not lose their inherent properties and are infinitely recyclable and contribute in this way to the circular economy concept.

To facilitate the private sector in taking its part in circular economy, an enabling environment for innovation should be created through directed funding and smarter regulation. Proposals to adjust existing EU instruments, funds and subsidies should be included in order to boost investment in sustainable innovation and new business models.

3.2. Enhancing cooperation

To close the gap between well- and low-performing Member States in the implementation of existing waste legislation, knowledge and experience on best practices should be disseminated. This can be done by promoting shared learning among companies, establishing knowledge platforms, and encouraging multi-stakeholder alliances. To drive these innovative initiatives, EU funds and subsidies should be available.

Case study: From Circular Economy 100 to the reuse of mobile phones

The Circular Economy 100 is a global platform bringing together leading companies, emerging innovators and regions to accelerate the transition to a circular economy.
The programme is based on the principle that more value can be gained from collective problem solving than can be achieved by working alone. The Ellen MacArthur Foundation fuels this process, with the help of their global partners, a network of academics and universities along with McKinsey as a knowledge partner by providing support.
Vodafone takes part in the CE 100 initiative. Through its mobile phone trade-in and leasing schemes, which provide incentives for customers to return old handsets for reimbursement, the company has already incorporated some of the principles behind the circular economy.

It offers consumers and enterprise customers in many of its local markets incentives to return used phones and tablets, including discounts on new devices, charity donations or store credit. Returned mobile phones are refurbished and resold.

4. Public spending

4.1. Fostering lifecycle thinking in public procurement

Public procurement is considered as a helpful enabler for the development of circular economy practices as it helps companies reach a tipping point scale for new business models and products, not to mention the potential it has to deliver benefits for the governments themselves. The most useful actions would be to inform and train procurement teams of public authorities on lifecycle assessment (LCA) of different types of products and business models, and to demonstrate its benefits in terms of total costs of ownership and social/environmental impact. This would set the stage for the procurement approach of authorities to avoid e.g. an oversimplification by granting a preferential treatment of “renewable” products compared to “non-renewable” products.

4.2. Putting in place enabling infrastructure

Ambitious targets require adequate investments in advanced collection schemes, using sophisticated sorting systems and separation technologies. Collection schemes should not be more fragmented than necessary.

Public collection and sorting infrastructure is especially relevant for lower value products. Governments are also well placed to enable the development of waste processing infrastructure, such as fermentation and composting plants making the closed loop of renewable resources possible.

5. R&D and innovation in circular economy

R&D and innovation are the cornerstones of circular economy. All elements of the waste hierarchy starting at prevention (e.g. through industrial symbiosis) are concerned. In particular, developments are needed in sorting technologies given the variety of waste streams and actors involved, as well as recycling.

6. International open data/IT standard

The “Internet of Things” brings the possibility to track lifetime status of connected products and components in real-time, allowing informed decisions on replacement of parts, timely maintenance or re-manufacturing. Currently, such information is captured in non-unified data formats and kept proprietary. An international open-data standard would allow for the creation of a service industry around smart asset management that can provide competitive stimulus leading to maximum user benefit and also supporting the circular economy business models.

7. Engaging consumers in circular economy

The behavioural dimension is extremely important. Consumers' engagement in circular economy models should be primarily driven by achieving a fit between circular economy business models and consumer needs.

Governments can also support by developing infrastructure for the collection of end-of-use products and ensuring that these services are known, understood and effectively used by consumers to further stimulate the return of products.

In order to change established mindsets and to move towards a truly resource-efficient society, it is also necessary to set up guidelines and supportive education programmes. To this end, the European Commission and Member States should offer appropriate funding projects.

Example from the aluminium sector: "Every can counts"
It is a unique industry partnership to encourage consumers to recycle beverage cans used outside the home. It engages consumers through its vibrant branding and innovative approach to recycling communication http://www.everycancounts.eu/.