ECOS, the EEB and Zero Waste Europe welcome this opportunity to provide our thoughts on the European Commission report laying down a “sector-agnostic circular economy categorization system” and supporting the development of the EU sustainable finance agenda. We welcome this first step toward the identification of activities substantially contributing to the transition to a circular economy. To help making this categorisation system more robust, we list below our comments and suggestions on the general approach embraced (I) as well as more technical, sub-category specific aspects (II).

I. General remarks on the scope and approach & cross-cutting issues

We welcome the inclusion of all the key principles of circular economy in the paper (all listed as part of the ‘9 R’s’) as well as the explicit exclusion of non-circular activities such as energy recovery; making this a comprehensive work in terms of general scope. We nevertheless have noticed a number of blind spots as well as key cross-cutting issues which should be further looked into.

More efforts on absolute material reduction strategies

We feel that the most effective material efficiency strategy: to simply refuse materials, has been overlooked in the report. Yet, rising material consumption is (1) in contradiction with the transition to a circular economy (as it continues to make our economies rely on virgin materials) and (2) makes the transition to a circular economy a bigger challenge as the quantities of materials needed to be managed increase.

Between 1970 and 2017, the annual global extraction of materials (fossil fuels, biomass, minerals and metals) has more than tripled, rising from 27 billion tonnes to 92 billion tonnes (IRP, 2019). Since 2000, extraction rates have accelerated, growing by 3.2% per year. Out of this enormous number, less than 10% has been cycled back to the economy (EC, 2020). And this trend is far from over: global material use is expected to more than double between by 2060, reaching 190 billion tonnes. This means that resource use would rise from 11.9 tonnes per person in 2015 to 18.5 tonnes per person in 2060 (EC, 2020). These figures give an idea of the challenge ahead.

One way to ensure that absolute material reduction strategies are better accounted for in the report could be to carry out a first eligibility assessment regarding the sector / activity / product to be included in the taxonomy. It is indeed crucial to contextualise how ‘material efficient’ it is to invest in a sector / activity / product in the first place. The future taxonomy should ensure that investments positively contribute to the environment rather than simply creating new needs which would result in increasing our material consumption, even if these new activities are based on business models regarded as circular such as shared products. One typical example is e-scooters which to date actually substitute ‘public transport, walking, cycling and car trips, but also include trips that would have not otherwise been taken’ (Carbone 4, 2019); while having a very short lifetime (some studies indicate an average operation time of 28 days, some around 3-4 months (Carbone 4, 2019).
Better reflect the respective performance of the various strategies (R1 - R9)

We regret that the sub-classification into the 14 categories does not reflect variations in circularity performances. For instance, some categories consider reuse and recycling together, while reuse has a higher circularity potential than recycling. These various circularity performances are well reflected in the 9 R’s list (p. 7) but later in the document not reflected any longer. The risk of not properly accounting for these differences is to divert materials towards less material efficient processes: for instance, divert products which could have been reused to recycling facilities.

Regarding recycling in particular, as highlighted by the Ellen Macarthur Foundation, recycling should be the last resort in a circular economy. Some recycling processes (e.g. chemical recycling) happen to be resource intensive and ultimately outweigh the actual benefits. Funds would be better used investigating material-free options where chemical recycling is not even necessary.

Avoid generic wording creating methodological loopholes

We do understand that this document is only the first step. Eligibility criteria are currently very general and will be required to be further specified (at product or activity level) in order to facilitate compliance assessments. For example, more clarity on what ‘comparable’ means for instance when referring to ‘comparable quality or functionality’ (p.9) or how ‘significant’ should resources savings be (p. 12) and how to measure these; will be crucial.

Be realistic about products ability and relevance to be properly treated at the end of their lives

It is crucial to make realistic end-of-life scenarios regarding the fate of products and activities included in the future taxonomy. For instance, the document refers to compostable materials as a generically positive investment option. Compostable packaging products fulfilling the requirements of EN 13432 biodegrade only in industrial composting facilities and therefore:

1. must be considered only if separate collection of organics is in place and
2. require specific infrastructure and attention during treatment.

This document should refrain from encouraging the creation of new waste streams for products where reusable alternatives exist. Ultimately, this work is about flagging activities substantially contributing to the transition to a circular economy and should therefore ensure that investments are channelled towards activities and products that are in line with the waste hierarchy and realistically promote this environmental goal.

Better integrate chemicals aspects as an enabling condition for the transition to a circular economy throughout the document

We welcome the reference to substances of concern (p. 9). However, we believe that more emphasis should be given to this aspect throughout the document as we consider it an underlying issue for the circular economy. It is not enough to only substitute or reduce substances of concern: in a circular economy the very need for substances of concern to exist should be out-designed. Only those economic activities contributing to the full elimination or substitution of substances of concern, as well as to the traceability of any chemical used throughout the supply chain, should be integrated in the future taxonomy.

In addition to substitution of substances of concern, the traceability of chemicals and different materials used in articles and components throughout the supply chain should be better promoted as a feature of circular design addressing the interface between chemicals, products and waste. Initiatives such as product passports or information systems for substances of concern enable relevant actors in the life cycle of the product to know which chemicals are present in the product or its components. Substances which are not considered today of concern might be classified in the future and it is crucial to avoid that these legacy substances will be reinjected in the economy through recycling.
II. Sub-activity specific remarks

Group 1 - Circular Design and Production Models:

1. **Sub-activity 1.a (category)**

   - We would like the activity to explicitly refer to the reusability characteristics of products and read as follows: ‘Design and production of products and assets that enable circular economy strategies, through e.g. (i) increased resource efficiency, durability, functionality, *reusability, refurbishment, maintenance*, modularity, upgradability, easy disassembly and repair; (ii) use of materials that are recyclable or compostable’.
   - This activity’s boundaries should further be extended to include design, production and consumption processes aiming to reduce the waste produced.
   - As highlighted in the previous section, we would welcome a more thorough assessment on the actual likelihood of materials with specific characteristics (e.g. recyclable, compostable) to be properly handled before considering that their use results in material efficiency gains.
   - As previously highlighted, the current wording of this activity does not enable to account for the fact that reusing leads to higher material efficiency gains than recycling.

2. **Sub-activity 1.a (category)**

   - We would refrain from explicitly referring to bio-based materials here as this might create confusion. Bio-based refers to the used raw materials while this activity refers to material properties intervening in a product’s use and end-of-life stages (i.e. ‘reusable’, recyclable’, compostable’). Bio-based products may very well be non-reusable, non-recyclable and non-compostable. On the contrary, fossil-based products may very well be reusable, recyclable and compostable.
   - As previously highlighted, the current wording of this activity does not enable to account for the fact that reusing leads to higher material efficiency gains than recycling.

3. **Sub-activity 1.d (category):**

   - As mentioned above substitution of substances of concern is crucial but needs to be complemented with traceability throughout the supply chain of chemicals used in articles and its components.
   - The reference to ‘substantial reduction of substances of concern’ is vague and can have ambiguous interpretation. The future Taxonomy should support in first instance the substitution of substances of concern whenever it is technically feasible, including through use of other materials or design solutions or by considering whether the functionality provided by the chemical is essential.
   - A reference to substitution by safer alternatives should be included to avoid regrettable substitutions.
   - Sorting and decontamination of recycled material is necessary to avoid reinjecting hazardous chemicals in production cycles through use of secondary materials. It could be emphasised that secondary raw materials used are toxic free and do not increase safety and health risks for users and the environment throughout value chains.
4. **Metrics and verification methods**

Reference to the EU Ecolabel and equivalent ISO Type 1 Ecolabels should be added as they include criteria for circular design and those will be further enhanced following the Circular Economy Action Plan. Referring to voluntary, best-in-class type of instruments rather than the mandatory Ecodesign legislation is more relevant under the Taxonomy framework.

5. **General comment:**

The sub-activities identified under this group mainly focus on the circular design of products. We recommend reinforcing the circularity of production processes by building on proposals made by the Circular Economy Action Plan (industrial symbiosis, green technologies, and integration of circular economy production practices as Best Available Techniques).

**Group 2 - Circular Use Models:**

*Sub-activity 2.c (specific circularity criteria):*

We would like the circularity criteria to ensure that the business model indeed implements material efficiency strategies beyond being a shared-good or a product-as-a-service business. These criteria should for instance ensure that lease models having no repair strategy in place but solely replacement or relying on the use of substances of concern are not eligible. Leasing and sharing businesses should be supported by the Taxonomy when goods offered have integrated the circular design and production guidelines described above.

**Group 3 - Circular Value Recovery:**

1. **Sub-activity 3.a (category):**

It would be interesting to understand how the various sub-activities interact with each other. This sub-activity refers to ensuring valorisation of waste. This is key and should be integrated into other sub-activities (e.g. 1.a) which refer to reusable, recyclable and compostable materials. However, in line with the recommendation in the introduction of the paper that energy recovery from waste is not considered as providing a significant contribution to CE objectives, we recommend that under this category investment in incineration capacities of non-hazardous waste is clearly excluded.

2. **Sub-activity 3.b (examples of typical investments/projects):**

We have reservations on the use of chemical recycling which, far from a mature technology, remains resource and energy intensive and which we consider only suited for residual and last resort cases. Close attention should be paid in ensuring that investments in chemical recycling do not divert investments from more material efficient strategies.

3. **Sub-activity 3.d (category):**

Actions should be also aimed at decreasing contamination of sludge, so as to ensure improvement of their quality with regard to the agricultural application. Also, promoting their biological treatment
(composting) may remarkably improve agro-ecological conditions for their use in agriculture (reduced nitrate losses, reduced release of ammonia, reduced phytotoxicity, reduced O2 uptake from soils, which may be detrimental to the soil biota).

4. **General comment (specific circularity criteria):**

This section should rely on measurements to track waste trade inside and outside the EU in order to ensure traceability of components and materials for reuse and recycling.

**Group 4 - Circular Support**

**Sub-activity 4.a (examples of typical investments / projects):**

Additional projects in this regard could be:

- The development of new accounting rules and finance performance indicators geared at dealing with new business models which have a very different return on investment dynamic than a traditional investment in a linear business;
- Tools enabling the traceability of waste trade;
- Tools enabling the implementation of products passports, as well as the labelling of specific substances in products and components.

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