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Comments to:

Closing the loop - An EU action plan for the Circular Economy and Annex to the action plan for the Circular Economy (journalnummer. MST-7719-00064)

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Side 1/6

We are very grateful to have the opportunity to comments on the proposed EU action plan on the very important topic of circular economy. After careful study of the text we provide the following comments with the hope of an even more coherent and complete action plan. If any further comments or clarification of our comments are needed we are prepared to further explain and develop our comments.

Comments:

Generally, the terminology “upgrading” - which seems to replace “upcycling” (opposite to downcycling) - is dealt with very weakly. The word is mentioned three times only in the Action plan. We suggest including the terminology “upgrading” throughout the action plan.

In the introduction, focus is still on substitution of chemicals (1), while upgrading of secondary raw materials prior to reuse/reentering the economic system is not mentioned. Furthermore, in relation to BREFs (2), upgrading is not mentioned, and hence, we suggest it to be.

New production is to be measured in accordance with their environmental impacts (3) and MS are to be encouraged to internalize externalities (4). We fully agree on this, however, the experience is that so far it did not work too well. We recommend generating incentives to internalize externalities.

Focus is on reducing the quantity of waste and boosting reuse activities (5). Regarding consumption, focus is on separation and awareness of the same (6). However, nothing is mentioned on suitability for reuse according to quality, which we consider as a very important area for safe reuse of upgraded waste material.



We notice that waste reduction and increased recycling/reuse are driven by regulation on the two lowest levels in the waste hierarchy (7). We suggest that it is also considered at higher levels in the waste hierarchy.

For high risk of consequence waste, i.e. WEEE, voluntary certification schemes of treatment facilities are proposed. However, there is no mentioning of management requirements for no-value hazardous elements (8) which we suggest to be included. Combustion with energy production seems to be the proposed solution for residues with no monetary value. This will continue emission of heavy metals and halogenated organics prior to landfilling of hazardous elements or reuse with no regulation as it occurs today, e.g. for asphalt production (9). This we consider less optimal.

In the section on turning waste into resources, “quality” is mentioned for the first time (10), referring to the preceding chapter on waste management. This, however, does not address the extraction/capture and reuse of hazardous no-monetary value technical elements (other than combustion and landfilling). However, barriers to production industries’ using secondary waste due to uncertainty regarding their quality are mentioned (11). An appropriate solution to solve these barriers is the inclusion of upgrading/upcycling technologies, securing the quality of the secondary waste, while delivering services in terms of reduction on the long term cost on the environmental and human health is mentioned. Still, the need of quality standards (12) and clarification of the end-of-waste criteria (13) is mentioned but is proposed to be strengthened by a requirement for quality standards for all secondary materials – a prerequisite for a circular regenerative economy, i.e. a long term sustainable economy. The demand of safe circular nutrient management systems (14, 15) without exemptions or assumptions that chemical substances of concern (16) will stop being part of the circular economy is underpinning the need for a complete regulation of all secondary material use and substance flows in a future zero waste society.

Priority areas mentioned are plastics (17), food waste (18), critical raw materials (19), and construction and demolition (20) – of which none address the extraction and safe handling of hazardous no-monetary value micropollutants.

In the chapter on Biomass and biobased products a generic framework for combined focus of effective resource use integrated with environmental health aspects are addressed; a principle which should also apply to the preceding chapters.

In the chapter on “innovation, investment and other horizontal measures” sustainable goals of achieving “high value-added product” (24) through “sus-

tainable process industry..." (25) is mentioned which is the only place in which the directive addresses quantity and quality as two sides of the same coin – however, only indirectly and without addressing "upgrading/upcycling technologies" specifically which would be preferred.

In the chapter on "Monitoring progress towards a circular economy" referring to existing "scoreboards" which are stated to include "relevant indicators...particulate useful for tracking progress" (26) and a set of meaningful indicators that capture the 21 main element of the circular economy (27) are mentioned, while it is well-known that huge data gaps exists in measuring sustainability aspects.

Finally, it is critical that the directive has very little focus on the quality of resource flows in a progressing and intensifying circular economy. It is out most critical that the directive states that indicators to track progress exist. More focus on upgrading/upcycling and how to avoid downcycling of the quality of e.g. consumer products is deserved. More focus on documentation of exchange of waste and their chemical quality according to their use as secondary raw material inputs in future innovative high added-value products is needed.

Lastly, documentation of future green/sustainable industries/ industrial networks should be in focus – sustainable production systems should document their contribution to mitigation of climate change and environmental degradation.

Sincerely,

Marianne Thomsen

Citations:

Introduction

- (1) Page 5: "Facilitating substitution of chemicals of concern or supporting SME access to innovative technologies⁷ are examples of actions in this area."
- (2) Page 5: "The Commission will include guidance on best waste management and resource efficiency practices in industrial sectors in Best Available Techniques reference documents (BREFs)¹⁴ and will issue guidance and promote best practices on mining waste."

Product design

- (3) Page 6: "The voluntary EU Ecolabel identifies products that have a reduced environmental impact throughout their lifecycle. The Commis-

sion will examine how to increase its effectiveness and contribution to the circular economy”

- (4) Page 6: “Member States are therefore encouraged to provide incentives and use economic instruments, such as taxation, to ensure that product prices better reflect environmental costs.”

Production processes

- (5) Page 7: “...revised legislative proposals on waste includes new provisions to boost preparation for reuse activities”

Consumption

- (6) Page 9: “...compliance promotion initiatives to ensure better implementation of EU waste legislation, including on municipal and hazardous waste and separate collection, and to raise awareness at national level.”

- (7) Page 10: “...funding for new landfill will be granted only in exceptional cases (e.g. mainly for non-recoverable hazardous waste) and that funding for new facilities for the treatment of residual waste, such as incineration or mechanical biological treatment, will be granted only in limited and well justified cases, where there is no risk of overcapacity and the objectives of the waste hierarchy are fully respected.”

Waste Management

- (8) Page 10: “...voluntary certification of treatment facilities for certain key types of waste (e.g. electronic waste, plastics).”

- (9) Page 10: “When waste cannot be prevented or recycled, recovering its energy content is in most cases preferable to landfilling it, in both environmental and economic terms. ‘Waste to energy’ can therefore play a role and create synergies with EU energy and climate policy”

From waste to resources

- (10) Page 11: “Waste management practices have a direct impact on the quantity and quality of the materials and therefore actions to improve these practices are crucial (see section 3. = **Waste Management**)”

- (11) Page 11: “One of the barriers faced by operators who want to use secondary raw materials is uncertainty as to their quality.”

- (12) Page 11: “...EU-wide quality standards for secondary raw materials where needed”

- (13) Page 11: “... clarifying existing rules on 'end-of-waste'”

- (14) Page 11: “Recycled nutrients are a distinct and important category of secondary raw materials, for which the development of quality standards is necessary.”

- (15) Page 12: “Water reuse in agriculture also contributes to nutrients recycling by substitution of solid fertilisers.”

- (16) Page 13: “A growing number of chemical substances are identified as being of concern for health or the environment and become subject to restrictions or prohibitions. However, these substances may

be present in products sold before the restrictions applied, some of which have a long lifetime, and therefore chemicals of concern can sometimes be found in recycling streams. Such substances can be costly to detect or remove, creating obstacles in particular for small recyclers.”

Priority area

Plastics

- (17) Page 14: “- The Commission will adopt a strategy on plastics in the circular economy, addressing issues such as recyclability, biodegradability, the presence of hazardous substances of concern in certain plastics, and marine litter. - The Commission is proposing, in the revised legislative proposals on waste, a more ambitious target for the recycling of plastic packaging.”

Food Waste

- (18) Page 15: take measures to clarify EU legislation relating to waste, food and feed and facilitate food donation and the use of former foodstuff and by-products from the food chain in feed production without compromising food and feed safety

Critical raw materials

- (19) Page 16: “The Commission will take a series of actions to encourage recovery of critical raw materials, and prepare a report including best practices and options for further action.”

Construction and demolition

- (20) Page 17: “ensure recovery of valuable resources and adequate waste management in the construction and demolition sector,”

Biomass and bio-based products

- (21) Page 17: “using biological resources requires attention to their lifecycle environmental impacts and sustainable sourcing.”

- (22) Page 17: “a cascading use of renewable resources, with several reuse and recycling cycles, should be encouraged where appropriate. Biobased materials, such as for example wood, can be used in multiple ways, and reuse and recycling can take place several times.”

- (23) Page 17: “....more generally, options that result in the best overall environmental outcome”

Innovation, investment, and other horizontal measures

- (24) Page 18: ”...transform waste into high value-added products”

- (25) Page 18: “..., sustainable process industry, industrial symbiosis, and the bioeconomy⁴⁵. These will be complemented by the implementation of the Eco-innovation Action Plan⁴⁶.”

Monitoring progress towards a circular economy

- (26) Page 20: “the Resource Efficiency Scoreboard⁵⁴ and the Raw Materials Scoreboard⁵⁵ contain relevant indicators and analysis which will be particularly useful for tracking progress.”



- (27) Page 20-21: “a set of key, meaningful indicators that capture the 21 main elements of the circular economy. These will be published in connection with the Commission's reporting on the Sustainable Development Goals and will include new indicators on food waste (see section 5.2) and indicators based on existing Eurostat and other official data in areas such as security of supply for key raw materials, repair and reuse, waste generation, waste management, trade in secondary raw materials in the EU and with non-EU countries, and the use of recycled materials in products.”