

Resources Conservation & Recycling

Special Issue: “Recycling of Packaging Waste: Considering All the Costs and All the Benefits”

Special Issue Editors

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Proposal

During the last two decades, the waste sector in the European Union (EU) has been experiencing significant changes. Most of the developments regarding waste management operations were rule-driven at the European level. Regarding the specific case of “waste from consumer goods”, the Packaging and Packaging Waste (PPW) Directive stands out among the many rules and strategies. This EU law imposed challenging targets for the recycling rates of packaging waste to be attained by the various member states.

Although limited for the countries that already had national policies for packaging waste recycling/recovery, the impacts of the PPW Directive were significant and of different types. First, there were institutional impacts arising from the structuring of the “recycling schemes”. Entities from the public and the private sectors had to develop and coordinate their efforts in order to create the proper legal framework and monitoring systems. The waste market structure in each member state was necessarily impacted by this Directive since new activities had to be carried out. Second, there were financial impacts arising from the “extra costs” that were incurred by waste management operators (e.g. due to selective collection and sorting). The Extended Producer Responsibility (EPR) principle, clearly embedded in the PPW Directive, led to a complex situation where the industry (private sector) is responsible for an activity that is traditionally carried out by local authorities (public sector). The industry had, therefore, to

reimburse waste management operators (local authorities) for the costs of managing packaging waste.

The problem is that these costs are hard to determine and sometimes it is difficult to differentiate a “cost” from a “price”. And third, there were environmental impacts (mainly) arising from the conservation of raw materials and the diversion of waste from landfills. Evidently, it is expected that recycling will have a positive balance between positive and negative environmental impacts. Accounting for these impacts is an extremely difficult research topic as their magnitude is contingent upon several external factors and assumptions.

Currently there is a latent need to perform an ex-post assessment of the impacts of the Directive within the EU. In fact, several questions arise that still do not find even a tentative answer in the literature. For instance: are the current recycling targets optimal (globally and per material)? Should all member states have the same targets? Is the EPR being effectively applied in all cases? What are the mechanisms devised to prevent the inefficiency of waste management operators? To answer to these and other research questions effectively, a multidisciplinary research agenda needs to be devised. All case-studies under analysis are required to take into account the specificities and institutional features of the respective countries. The financial costs and benefits of collecting, sorting, storing and recycling packaging waste need to be accurately estimated and allocated to the various stakeholders. And, finally, for a credible cost-benefit analysis of recycling, the environmental aspects need to be factored in.

This special issue intends to approach this complex subject matter and contribute positively to the research agenda. It will draw on an International Congress held under the same theme and integrated in a R&D Project sponsored by the European Investment Bank (the EIMPack Project – Economic Impact of the Packaging and Packaging Waste Directive). The issue will gather selected research papers from the congress. There will be articles covering each one of the three types of impacts mentioned above. The emphasis will be on research that accounts for all types of impacts (costs and benefits) and attempts to estimate the economic rate of return of the enhanced environmental protection achieved through the PPW Directive.