

CIRCULARITY AND CHALLENGES FOR ENVIRONMENT AGENCIES

THE SHIFT TOWARDS A MORE CIRCULAR ECONOMY RELIES NOT ONLY ON THE FULL COMMITMENT OF BUSINESSES, BUT ALSO ON THE GENERAL REVIEW OF CONTROL AND SURVEILLANCE STRATEGIES. THE PRODUCTION PROCESS WILL REQUIRE MORE ATTENTION AND ALSO A CLOSER CONSTRUCTIVE COOPERATION BETWEEN PRIVATE AND PUBLIC SECTORS.

The shift towards a more circular economy unleashes unprecedented opportunities for Europe and its citizens. A successful outcome requires a deep circularity-oriented reorganization of production and consumption processes as well as the adoption of new models likely to become the new cultural heritage of future generations.

The recycling potential of a product and its components largely relies on its original design. Eco-design, for a long time focused on energy efficiency, can give a meaningful contribution to circular economy defining crucial requirements, about lifecycle, repair, update, assembly, use and recycling.

This will imply the commitment to manufacture brand new products but also in changing specific features of already existing products and will result in a general improvement of the value chain. Waste management will also have to adapt to these new principles. The EU hierarchy defining the strategy needs to be the core of both public and private waste management policies. By-products and end of waste strategies will be prevention measures; moreover this approach will contribute to the split between economic growth and waste generation reducing the recourse to virgin raw materials. This in-progress revolution implies also a general review of control and surveillance strategies in order to make the command and control model suitable for supporting this process. All the relevant stakeholders, including manufacturers, operators and control authorities will have to collaborate on that on a regular basis. Let's just think to issues like the marketing of by-products, i.e. secondary materials resulting from end of waste treatments. The scope of the Reach regulation will need to be extended also to by-products and secondary materials for industrial processes or re-use and consumption. More generally, there is the need to

improve the connection between re-use and recycle on the one hand, and design processes on the other hand. Actually the specific rules in this field are clear in terms of principles, but hard to be put into practice.

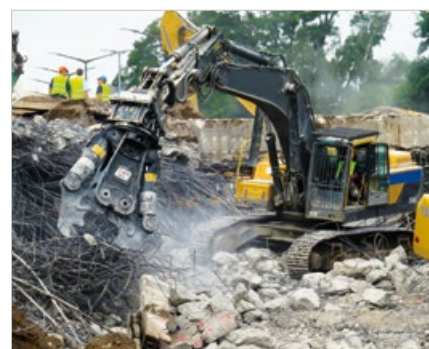
The enforcements entails the fulfilment of all the requirements set forth by articles 184a (by-products) and 184b (end of waste) of Legislative Decree 152/06, defining the fundamental principle differentiating waste from resources, in other words "the lack of a disposal willingness".

Putting this basic principle into practice in daily and management operations is rather complex, especially if controls can be performed only at end of pipe level. It is clear that the compliance with this principle can be guaranteed only through clear and transparent design ability of manufacturers together with managers/users.

Any use of by-products or secondary raw materials generated by end of waste processes will need to be clear from the very start of manufacturing processes. The many final foreseeable options will also have to be flexible enough to be modified according to the expertise resulting from environmental certifications and from the controls carried out within the context of Integrated Environmental Authorizations. Also local and specific initiatives may be helpful, such as sharing by-products lists referring to well-defined repositories.

Any list has to rely on the enforcement of general principles proving the existence of a common "use and consumption project" shared by all the relevant stakeholders. For this reason Emilia-Romagna set up a proper procedure certifying acknowledgment of good practices by companies through the creation of a Regional by-products list (Decree of the Regional Government 2260/2016).

Enrolment on the list is discretionary and does not jeopardize the chance to prove,



through the specific lawful procedures in the field, that the substances and/or objects resulting from the specific supply chains can be classified as by-products. Certainly this solution will contribute to a better organization of the control system that will be informed of the preparatory work done to fill in the fact sheets illustrating the features of the production processes and the resulting by-products to be enrolled on the list. One of the main challenges posed by the circular economy, on which Environment Agencies will certainly have to give their contribution, is the shift from an impact-assessment based system to a system assessing the features of a product and of its production process.

For Agencies it will certainly be difficult to assess by themselves the proper required regulatory compliance. Therefore a whole system will be needed, the circular economy will have to integrate and enforce environmental quality oriented production processes fully complying with the specific production quality requirements and remaining in line with the latest market scenarios. Any form of circular economy getting away from the compliance with such industrial process features (economies of scale, procurement safety and multi-use products) will unlikely let Agencies play their role in an efficient and effective way.

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