There is no Waste: Towards Holistic Resource Management

A Threelfold Approach to Sustainable Development

One of the main features of a Circular Economy is to keep materials at the highest possible use at all times, thus to prevent the loss and deterioration of materials and substances and to close the loop that entails the provision of resources, the design and manufacturing of products, their use phase in cascades and, finally, their end-of-life treatment according to the EU’s waste hierarchy. The need to move towards a circular economy has been emphasised with the adoption of the Sustainable Development Goals (Goal no. 12: Ensure sustainable consumption and production). An industrialised country’s commitment to these goals has to be threefold in order to achieve sustainable consumption and production patterns at the global level. Germany has to further advance recycling and address additional material flows (implementation within Germany), as well as to export viable solutions to other countries (by transferring technology and expertise) and, finally, to support other countries through global partnership and bilateral cooperation.

Resource Productivity and Waste Management

In 2016, Germany updates its 2000 strategy for sustainable consumption and production, the industry in order to link it with the SDGs at the UN level. So far, the strategy aims to double resource productivity until 2020 (compared to 1994 levels). This has led to a range of activities, including a resource efficiency programme that focuses on market incentives as well as voluntary measures and initiatives. Its perspective is mainly domestic, which will have to change in the future. In regard to Germany, a resource productivity goal, the Council for Sustainable Development, therefore, demands to consider the global dimension of resource consumption by factoring in all imports, both direct and indirect. Furthermore, this goal has to be differentiated in order to make visible advances towards a circular economy.

As well as other industrialised countries, Germany has developed a sophisticated recycling system for some materials, put into practice the concept of product responsibility for packaging and, nowadays, almost closes the loop for iron, glass and copper. However, Germany is far from reaching high levels of recycling for other material flows (for other industries and, finally, for society as a whole — e.g. plastics, phosphorus, technology metals and building materials. While the treatment of some wastes has become efficient and economically feasible, the bulk of materials put through the economy is being degraded at most or not reused at all. Changing this can only be achieved through a change in perspective: away from waste management and towards holistic resource management.

Resource Neutrality is Achievable

As a matter of principle, all waste has to be seen as a resource. The Council for Sustainable Development holds the vision of Germany as a resource-rich country because of all the materials and resources that have accumulated over the past decades that Germany has become an affluent society with a high-industrialised society. This vision is not immediately achievable, but it acts as a practical, far-reaching goal that corresponds well with the SDGs. In this light, resource neutrality becomes an imperative for sustainability and underlines once more the strength and potential of a circular economy. In order to achieve this, new approaches to the use of resources in production and manufacturing need to be taken: responsibility for materials and resources has to broaden the scope of both product responsibility and extended producer responsibility (EPR). Design for repair and design for recycling have to be differentiated in the standard approach in developing new products. This asks for new forms of collaboration between consumers, brands, producers, material specialists, recyling experts, process engineers and policy makers.

The circular economy can add value in domestic markets, create jobs in all sectors and reduce environmental impact. It helps to link different sustainability goals through a cross-cutting approach to economic development — not only value chains, but within closed value loops.