CIRCULAR ECONOMY: RESOURCES AND OPPORTUNITIES

ISWA’S KEY MESSAGES ON RESOURCE MANAGEMENT
ISWA’s key messages on resource management

The potential for effective resource management and in particular the circular economy to drive economic growth has caught the imagination of leading thinkers across the globe.

National environmental policies to reduce landfill and landfill gas emissions are being overtaken by demands to rethink industrial processes. The waste industry has been driven to find new markets for secondary raw materials as across OECD countries landfill, as a sink of last resort is banned or all but priced out of the market.

The unintended implication of these changes has been a global surge in secondary raw materials seeking markets. New patterns of global trade have emerged for recovered paper, plastics, textiles and waste derived fuels despite strongly fluctuating commodity prices. As the risks to raw material supply have become evident government and business interests have sunk growing research funding into how to change current operating business models and to secure investment in new treatment technologies.

In recognition of these challenges, the ISWA Board established the ISWA Task Force on Resource Management in June 2014. The task force has prepared a study into the current trends and a series of reports to help the waste industry to respond to these unprecedented pressures on our industry.

This leaflet presents the ISWA key messages on resource management and the circular economy.

For more information visit www.iswa.org/resourcemanagement

**Sustainable waste management has a crucial role to play**

ISWA believes that resource management is central to sustainable development and that the waste management sector has a crucial role to play in optimising material and energy use within the circular economy. The circular economy is an opportunity for the waste management sector. It is a catalyst for new skills, innovation, knowledge and development; and will result in new technologies, business models and partnerships. To reach its potential, the waste management sector has to develop its own roadmap towards the circular economy, while recognising the need for cross-sector collaboration.

**Sustainable waste management provides more goods and less environmental impact**

The waste management sector is already making a pivotal contribution to the field of sustainable materials and energy management, by providing secondary raw materials for production, carbon matter and nutrients for improving and fertilizing soil and carbon neutral energy for electricity production, heating, cooling and transportation. Hereby, the sector is significantly reducing the environmental impact associated with raw material extraction and production as well as reducing the emission of greenhouse gases. The waste management sector has the skills and knowledge needed to facilitate the drive to a circular economy throughout the value chain.

**The first step starts with waste prevention**

Effective waste prevention measures are key to resource efficiency and the circular economy. The waste management sector is already engaged in waste prevention initiatives, but the concept is not yet a fully integrated part of the waste management systems. Therefore, in order to support, facilitate and operate efficient and effective waste prevention initiatives, the waste management sector has to develop and integrate waste prevention activities, such as awareness training, feedback to designers and manufacturers as well as reuse and refurbishing, into the business models of the sector.
Due to technological and scientific challenges, such as material deterioration and the lingering presence of hazardous substances, it is not possible to fully close the loops without substantial technological advances, which will take considerable time to reach. Meanwhile, the effective life of materials can be extended through optimal cascade utilisation before they are recovered for energy or finally disposed in a safe way.

The circular economy relies on energy as much as it does on material feedstock. Circular flows will always have a residual waste stream, either due to market conditions, technologies available or social barriers. This residual waste stream shall be considered as an important energy resource, along with the biodegradable fraction of municipal solid waste and industrial wastes.

The successful emergence of the circular economy calls for research and development involving multiple disciplines, cross-sector technologies, economic considerations and the natural and social sciences. The work will find effective and viable means to overcome challenges and barriers on the road towards the circular economy as well as develop a robust systemic approach to the circular economy itself. The waste management sector’s experience in developing and operating solutions for material and energy recovery as well as its everyday experience of facing the challenges of taking care of the residues of the linear economy will make a valuable contribution to this task.

Well-functioning markets are crucial for sustainable resource management and the circular economy. The preconditions for such markets are well defined and commonly agreed quality standards, testing methods, trading conditions and dispute resolution mechanisms. Furthermore, trading systems and exchanges providing transparent and open trading information will reduce price volatility and transactions risk and make the trade more attractive and viable. The waste management sector, can together with the other actors in the value chain, support the establishment of such conditions and markets mechanisms.

There is a need for revised, consistent long-term policy, legal and fiscal frameworks to support the emerging circular economy and the development of sustainable resource management. Such frameworks have to supplement the supply-pushing material recovery targets in place today with incentives to create sound market demand for recovered materials. In addition, they have to secure an unbiased relation between virgin materials and new products on one side and recovered resources and refurbished products on the other, as well as foster research and development within the field of resource management and the circular economy.

All actors in the value chain need to interact and be involved in the transition toward a circular economy — designers, producers, manufacturers, consumers, policy makers, and the waste management sector. The waste management sector wants to engage proactively with all actors along the value chain.
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