

Chartered Institution of Wastes Management Scotland Centre

Position on the Circular Economy - May 2015

The following statement forms the Chartered Institution of Wastes Management (CIWM) position on the Circular Economy. It also considers future direction and policies on the issue in Scotland. Whilst the focus is on municipal solid waste (MSW), the views expressed apply equally to commercial and industrial wastes (C&I) and other waste streams.

It is our understanding that the Circular Economy seeks to move manufacturing, retailing and consumption away from linear processes towards more circular systems which by their nature are less wasteful, protect natural resources and conserve materials and energy in such a way as to protect and enhance our environment now and for future generations, but also provide opportunities for new industries and jobs to be created through these circular supply chains.

In order to achieve this step change there will need to be activity and support put into education, enterprise, innovation and policies which support, encourage and enable companies and individuals to think and act in this way.

The CIWM believes that our sector has achieved a great deal in a short space of time to move from a predominantly transport and landfill model to the industry we see today. The institution also believes that to make many of the changes required, there will need to be more partnership working, a greater understanding of the flows of materials through supply chains to consumers and, ultimately, on to end destination. It will also need to consider the full range of materials and activities which can result in wasteful and short term design to include farming and agricultural waste, construction, clothing packaging and electrical products.

The circular economy model is beguiling in its simplicity and fundamental good sense, however the resource economy is inevitably not simple, especially where there is an inter-relationship between materials and energy. Scotland has massively ambitious targets for the eradication of fossil and nuclear fuels from its economy and that low carbon energy production is being promoted in every other government policy area apart from waste and resource management; therefore it is appropriate for CIWM Scotland to highlight the opportunity that our sector has to contribute to sustainable energy policies providing the Circular Economy approach does not become a straightjacket preventing appropriate energy recovery developments.

There is much talk in Scotland of retaining resources in Scotland for remanufacturing/reuse. This, of course, is to be supported but we need to understand whether putting effort into this will deliver the desired outcomes, both economically and environmentally. Secondary resources are global commodities and often require volumes much larger than those generated by the Scottish economy to make reprocessing facilities economically viable. Furthermore, energy and labour costs are



demonstrably lower in other parts of the world, again making large scale investment in reprocessing here more expensive and riskier. The brokerage service may have a role to play here but efforts to date to create reprocessing capacity in the plastics market have not come to fruition despite significant resource commitment from government and Zero Waste Scotland. Ensuring maximum capture of materials in a form and quality that can be fed back into the global circular economy should be our priority. While this should be the ambition, if it isn't economically and environmentally feasible and sustainable supported by Life Cycle Assessment (LCA) or equivalent then it shouldn't be contemplated.

Medium to long term goal - early measures

It is also recognised that a number of the goals of the circular economy could take some time to come to fruition. This is due to the complexity of existing supply chains, the ability to get the correct partners in the correct place at the right time, and the sheer scale of the task. It may also require technical breakthroughs or clever research and development. It is believed that much can happen now but to fundamentally change the systems we have in Scotland now to a more circular economic model may take some time.

The CIWM, therefore, believes that what we should do now is consider what steps are needed to continue to move us all in the desired direction, including policy steps which define activity and support the journey.

Use of targets on specific material streams. New reuse, recycling and waste prevention and landfill diversion targets for any waste streams need to be justified from an economic, environmental and social perspective.

Realistic targets which are achievable by all Member States (MS), need to be set over a manageable timescale with intermediate steps if necessary. This is the same for any legislation placed upon local authorities and private business as a whole.

Cost Benefit Analysis, Impact Assessment. All significant proposals should be subject to a comprehensive cost-benefit analysis, from an economic, social and environmental viewpoint.

Prevention, Reuse, Design for Recycling. Obligated producers are influenced in their packaging choices by cost savings which can be achieved through design for recycling, technical innovation and prevention measures.

Continuous improvement in eco-design choices and prevention measures are to be encouraged without compromising the internal market; in effect this means that for the most part measures to



promote eco-design can only be taken at EU level, recognising the importance of a stringent cost-benefit analysis.

Prevention. Defining measurable targets for prevention is, at this stage, overly ambitious and further research is required before considering any additional measures such as packaging prevention targets. One of the key challenges is to decide on criteria for monitoring and measuring prevention, particularly in light of packaging reduction already achieved in the past and the potential risk of product loss. Significant consideration should be given to remanufacturing and service to include leasing.

Design for Recycling. Design for recycling is a complex topic. There is a need to consider the issue carefully. In the case of packaging minimisation there is a need to balance packaging reduction, reuse and recyclability and the impact this has on the protection of products (i.e. to avoid measures that could lead to product loss or food wastage). The demand from consumers, coupled with a financial incentive to reduce material use and increase recyclability, are mechanisms which have already and will over time increase the importance of design in the markets without regulatory intervention.

Creating measures for future demand and material specific plans The current and future raw material needs and all secondary raw material sources in different industry sectors beyond consumer goods and municipal wastes should be assessed. This will be necessary if we are to create sector-specific targets and measures to achieve the goals of the circular economy: environmental protection, securing of raw materials, job creation and sustainable economic growth.

Communications.

The CIWM believes that effective communications will be crucial in helping to move linear to circular thinking, and that for each stage in the circular economy model greater clarity and understanding among all stakeholders will be necessary.

Developing a comprehensive integrated circular communications plan which makes sense of what the circular economy actually means to all stakeholders and which clearly sets out what the economic, social and environmental opportunities will be for Scotland will help to drive circular supply and demand and the cultural change that will be required to make this happen.

Circular behaviour will be delivered by greater resource awareness, understanding and confidence for each of the key stages including:

- Minimisation
- Production
- Consumption
- Collection
- Reuse
- Recycling



- Repair
- Redesign
- Remanufacture
- Re-retail
- Re-Consumption

The CIWM believes that what we should do now is to develop an integrated communications plan which clearly identifies the key stakeholders and target groups, the barriers and facilitators to drive positive behavioural change and the short, medium and long term communication actions that can be implemented to support sector-specific targets and measures to achieve the goals of the circular economy.

The CIWM welcomes efforts to date

The support and investment in a remanufacturing centre in Scotland is welcomed and praised and this centre can develop a huge amount of knowledge and understanding. The support of ZWS and the team of experts continue to guide and highlight best practice and examples of circular economy activity in action. The strong signal provided to the market in Scotland on the Government's view in terms of policies and regulation which drives material away from landfill and towards higher forms of recycling, re-use and re-manufacturing is also welcomed by the sector. It is also very positive that the Scottish Government continues to support the sector by highlighting opportunities within investment and infrastructure development through the work of ZWS, Scottish Enterprise and others.

Summary

The CIWM welcomes greater focus on circular economy and thinking. Much has been achieved to date and the strong legislative framework already in place could be enhanced and driven further to divert more materials into higher forms of recycling, re-use and re-manufacturing. In parallel and for the longer term, we need to invest and develop in commerce, science, design and engineering to deliver innovative and more circular products and business models.

Any new legislation should be based on sound cost benefit analysis from both an economic, social and environmental point of view. Clear, uniform and sound advice should be given on any attempts to legislate for minimisation or design and these policies must not intervene in the free trade of goods and may best be dealt with at an EU level.

Other industries and material sectors should be considered and prioritised in terms of the beneficial effects work in these alternative areas could bring in scale and impact of change. Examples of this are plastics and metals held within building, construction or transport. Very little data is held on these



material flows in these sectors at present. Much emphasis is given at a political level on MSW and domestic waste. These other areas – mining and aggregate, C&I, transport, construction and agricultural wastes – have a huge impact in today’s society. This is not to say that packaging, waste electrical and electronics, vehicles, batteries, clothes and other streams are not important but in terms of scale they are small and much more complex streams to tackle than the others mentioned.

Any new system of targets, which could continue to move the sector in the right direction – up the waste hierarchy – should be fair, manageable, effective, efficient and deliverable.

Reliable and accurate data is key to factual decision making. There is a requirement for better data and data capture. More consideration should be given to enhancing our knowledge of the flow of resources into the country and what they are used for as well as the flow of resources out of our country at end of life.

The CIWM therefore feels that as we move from our linear systems of design, manufacture and disposal we should set our standards of data collection, resource recovery and end markets higher and work to remove poor quality and illegal activity from our sector. We need to continue to be guided by the waste hierarchy and use our existing knowledge and partnerships to drive change towards a more circular way of thinking over time.

For further Information please contact:

CIWM Scotland
MediaCorp House, 2 Caird Park
Hamilton, ML3 0EU
T: 01698 897 521
M: 07921 386 000
E : catherine.maclean@ciwm.co.uk
W: www.ciwm.co.uk/Scotland