

The Circular Economy: what does it mean for the waste and resource management sector?



Foreword from the CIWM president, John Quinn FCIWM



When I was asked to suggest a theme for my Presidential report, the one I immediately thought of was the Circular Economy.

At the time I was acutely aware of the fact that the theory of the Circular Economy had been addressed by many other august organisations in the recent past and that there could be a perception that another piece of research by CIWM might be deemed superfluous. This in my mind was beside the point, as the intended scope was not really to cover the theory, but to inform decisions about the practice and particularly the future role of CIWM in the evolving Circular Economy landscape. My view then (and more so now) was that there is a huge imperative for CIWM to play a central role in leading the sector, to build capacity and influence in an area seen by many practitioners as a vague concept, presenting a threat rather than an opportunity to the sector. I wanted to stimulate debate about CIWM's potential role in 'operationalising' the Circular Economy for the sector with a view to maintaining the organisation's relevance to members as we go forward.

Accordingly, I am very pleased to be associated with the commissioning and launch of this significant research into CIWM members and the wider industry thinking about the Circular Economy.

The research shows as expected that it means different things to different people. It has covered a broad spectrum of interests in the waste and resources sector across the five countries of these islands. It has included a wide range of organisations across the industry and employees from CEOs to operational staff.

It provides CIWM with an important insight into the understanding of the Circular Economy and provides for us a valuable building block and a positive opportunity in plotting our direction in the future.

I hope that readers will find the research useful in their daily work as a point of reference and information for how individuals and organisations are developing their own thinking and practice in terms of the Circular Economy.

For the Institution, it will provide a springboard for the corporate thinking of the organisation. I can assure readers that in my year I will make it my business to ensure that the expectations of stakeholders for leadership from CIWM, so clearly articulated in the research, will be translated into action as the Institution progresses. I hope to report further on that issue during the course of my year in office.

Finally, I would like to thank the authors Ray Georgeson and Dr Jane Beasley for their input and indeed their forbearance (with me in particular) in compiling this work.

I would also like to thank the Scientific and Technical Committee of the Institution which acted as Client and Commissioner for this piece of work, prepared the brief, and managed the process on behalf of the organisation. In particular I want to acknowledge the very valuable input of Professor Margaret Bates, Advisory Group & S&T Chair (and Junior Vice President), Tracy Moffatt, Technical Manager at CIWM, and the contributions of Martin Hogan, Cathy O'Brien, Stuart Reynolds and Keith Riley.

A handwritten signature in black ink, appearing to read 'J Quinn'. The signature is fluid and cursive, with a long horizontal line extending to the right.

October 2014



Executive summary

In the past twenty years, the emphasis of the waste and resource management sector has moved from landfill to recycling, and there is now a growing and increasingly powerful argument that the Circular Economy will increasingly dominate over the next decades. This will involve substantial changes to the culture, principles and practice of the current waste and resources sector and bring new challenges and opportunities. It is a framework that extends well beyond the traditional boundaries of CIWM's sphere. CIWM is at the heart of the waste and resources sector and it is vital that it understands the concepts and implications of the circular economy in order to maintain and enhance its leadership role in serving the interests of its members and fulfilling its Royal Charter.

Recognising this, CIWM identified a need to gain insight into the understanding of and preparedness for the circular economy, both across the CIWM membership and the wider waste and resources industry. Therefore research was commissioned to provide both a quantitative and qualitative insight of the membership and beyond, using an online tool to secure views and opinions and structured telephone interviews with a broad range of industry leaders from across England, Northern Ireland, the Republic of Ireland, Scotland and Wales.

The report presents the findings in detail and the main features of the project, including an overview of the approach taken to conduct the research and the main findings and recommendations are identified below.

1. An electronic online survey was completed by 612 respondents, and 54 detailed interviews were completed with industry leaders. 440 respondents stated they were CIWM members, representing 8% of the total membership in July 2014.
2. With regard to the online survey, over 80% of respondents stated that they are very or reasonably familiar with the term 'circular economy'.
3. One-third of survey respondents state that the term is used frequently within their organisations, and of those stating this, they are then split fairly evenly (36% yes; 44% no) in their view as to whether the term as used is understood in their organisations.
4. The majority of survey respondents support the statements linking the circular economy to becoming more resource and energy efficient and consider that it is about replacement of the linear economy. In the same vein, the majority of respondents also agree that the circular economy is about designing out waste and reducing the need for virgin resources.
5. Survey respondents were more split on the statements around circular economy as a repackaging of sustainability, whether it is about achieving zero waste, and whether it is a radical new approach to the way we make products. They were also split on whether it is much the same thing as closed loop recycling.
6. Survey respondents firmly stated that they felt that the circular economy is about increased recycling of products and materials and also firmly disagreed that the circular economy is simply a theoretical principle that cannot be put into practice.
7. Both survey respondents and industry leaders interviewed have mixed views about the current status of the circular economy, ranging from cynicism that it is purely fashioned by marketing and policy makers with little new substance, through to genuine excitement that it is the future for the waste and resources industry.
8. With this current lack of clarity, leadership remains a major question. Both survey respondents and industry leaders interviewed expressed very mixed views on where leadership was coming from, many suggesting there was little leadership and that it was fragmented. However, unprompted recognition was strong for the Ellen MacArthur Foundation (and industry they work with), WRAP/Zero Waste Scotland and the European Commission.
9. A majority of respondents from both the survey and detailed interviews see the circular economy as an opportunity with a significant minority seeing real challenges and threats. Nearly all agree that it will impact upon them, either way.
10. Despite this, there is little evidence of planning for the circular economy. In the survey there was a low response to the question linked to planning, with only 27% of respondents saying they are doing any even modest level of planning for the circular economy.
11. Lack of awareness and poor clarity of terminology were highlighted as key hurdles to developing the circular economy by many respondents in both the survey and the interviews. Although a range of challenges were identified, these stood out as barriers that are hampering interest and buy-in within organisations.
12. Survey respondents indicated that they felt that few organisations or sectors were well prepared for the circular economy. Scottish and Welsh policy makers, research organisations, reprocessors and consultancies were seen as best prepared. Sectors regarded by those responding as least prepared were local authorities, English policy makers and retailers.
13. CIWM is seen by most survey respondents as being insufficiently prepared for the circular economy, as indeed are most organisations in the sector. However,



survey respondents and industry leaders clearly support the leadership shown by CIWM in initiating this work and indicating a desire to respond to the emerging agenda. Very few respondents suggested CIWM had no role to play in the circular economy; the message was one of willingness to support and mandate CIWM to make changes.

14. Survey respondents and industry leaders identified a range of potential support from CIWM that could be developed, including improved training and communications, practical case studies and stronger links with the leaders in the circular economy arena.
15. All industry leaders interviews pointed to a commonly shared view that despite the concerns, reservations or even cynicism of some about the circular economy being simply a fad and a bandwagon, this is the start of an exciting period. Respondents felt that we could be about to experience another real step change in our sector, a generational change that will look very different to the one which saw the start of the (still incomplete) transformation of the waste management industry from landfill-led to resource recovery-led.
16. Interviewees' willingness to engage on the practical issues and challenges and their desire largely to encourage CIWM in responding to members' needs for support in understanding the circular economy and its implications is seen as a welcome step. Rather than see their comments as criticism of the Chartered Institution they are more an acknowledgement that we all need to do more to prepare and adapt and that CIWM has the potential to be a real catalyst here.
17. It was clear from the interviews and the survey that if the circular economy is to be a permanent change and even a paradigm shift, not just a marketing and policy makers' fad, then the lack of clarity and direction makes it even more important for the CIWM to be a facilitator, networker, disseminator and catalyst at the heart of the unfolding debate.
18. CIWM has an important role to play as one of a wider group of stakeholders, such as Governments and their agencies, retailers, designers, manufacturers and researchers. Together our task is to secure the benefits of the circular economy as well as raise the profile of the value of the circular economy. Based on our reflection of the insight provided by many leading figures in the waste and resources sector, we offer CIWM for consideration five key recommendations:
 - Develop, lead and co-ordinate a Circular Economy Action Group with a focused remit to engage internally with the waste and resources sector and externally with all key players up and down the supply chain, which will deliver an Action Plan with a routemap assisting organisations to drive towards the transition to a circular economy.

- Develop a Circular Economy Policy Statement that clearly signals to outside stakeholders in the resources supply chain the intent of the Chartered Institution with regard to its role in the development of the circular economy.
- Identify opportunities to embed the circular economy into CIWM's day to day activities, structures, strategies and future planning.
- Utilise all communication channels such as the website and journal and social media, focusing on the potential role of the CIWM as a catalyst and facilitator, for engagement and dissemination of circular economy developments and practice within the whole CIWM membership.
- Invest further time and support in initiatives, such as the RSA's The Great Recovery, linking designers and other actors in the supply chain with waste and resource managers, by providing a combination of corporate support from CIWM and development of a network of waste and resource management organisations willing to contribute.

Rationale for the report

The circular economy concept has been widely discussed and analysed in recent years and has rapidly gained credibility in the waste and resources sector and also amongst various large businesses. From its theoretical and practical foundations in the 1970s with the work of Professor Walter Stahel it has more recently hit the mainstream of eco-industrial thinking. At the outset, this was largely due to the work of the Ellen MacArthur Foundation, but others in the UK have also advanced the theory and practice of the circular economy, notably WRAP, the Governments in Scotland and Wales, The Great Recovery project at the RSA, and the Green Alliance. The circular economy is a hot topic within this sector, frequently discussed and debated.

The core vision of the circular economy is of replacing the current largely linear economy of 'take, make and dispose' with one in which resources circulate at high value, avoiding or reducing the need for virgin resources. The main drivers for the circular economy are increasing price volatility and supply restrictions of virgin resources, policy drivers such as producer responsibility regulations and, arguably, a changing consumer culture.

The diagram overleaf shows a range of different processes and material flows in a circular economy. The UK waste and resources sector has been very active in the outer circles in the diagram (recycling, composting, anaerobic digestion etc) and some progress is being made towards improvements in material recycling such as improving recyclate quality and moving from downcycling to closed-loop recycling. This can be presented as good progress towards the circular economy.

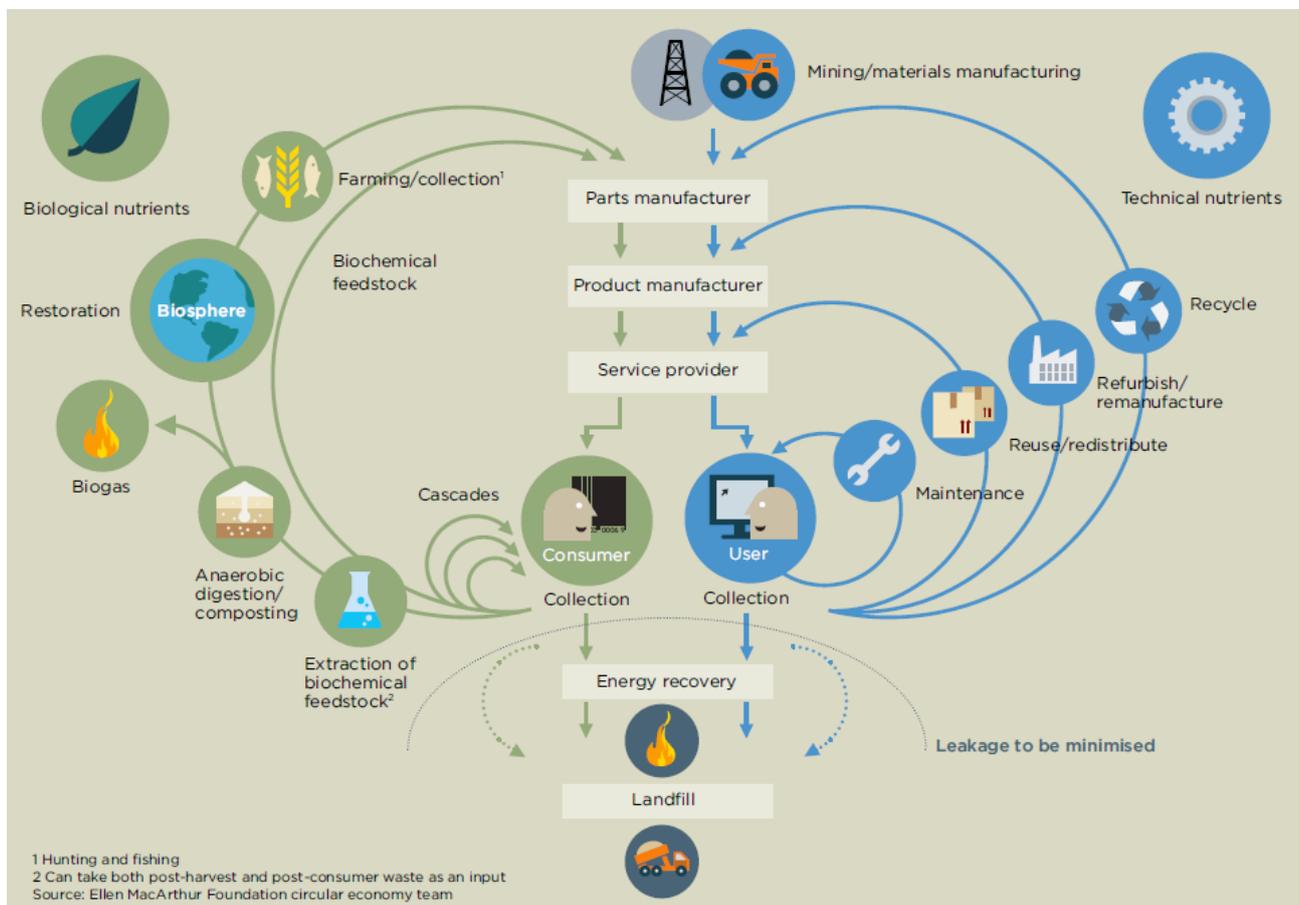


However, the more visionary aspects of the circular economy, involving new product lifecycle supply chains and new business models focused on the elimination of waste in the traditional sense, could bypass the waste and resources sector in its current form. Other circular economy activities such as repair, refurbishment and remanufacture are not significant in the waste and resources sector at the moment but could become so in the coming years.

An important issue for CIWM here is the extent to which its current members can adapt to this new resources landscape and how CIWM might develop its membership to draw in organisations already active in the wider circular economy but who do not currently see themselves as part of this sector.

The circular economy concept is a big idea that allows widely differing interpretations in how it might be implemented. Organisations throughout the sector will have differing views about what it means, how it might be progressed and their own current and future roles in advancing the circular economy.

This research was commissioned to help CIWM understand the different views within the waste and resources sector across England, Scotland, Wales, Northern Ireland and the Republic of Ireland. The research seeks to reveal what the broad spectrum of organisations and individuals in this sector understand by the term ‘circular economy’ and how their attitudes and opinions vary across the different parts of the sector and across the five countries. The research seeks to provide CIWM with an insight into what infrastructure, policy or awareness support the sector needs and what opportunities are available in relation to the circular economy. It is hoped it will provide a foundation for CIWM’s future leadership in this area.



The Circular Economy Butterfly Diagram: value recovery for biological and technical materials.
Credit: Ellen MacArthur Foundation



Conclusions

The research shows that the sector appreciates the leadership shown in CIWM commissioning this piece of work and the indeed the expectation that the Institution will continue to consolidate its position in influencing the Circular Economy agenda.

This emerged clearly in the detailed list of potential actions for CIWM that they identified, here in more detail to illustrate the extent to which stakeholders saw important roles for CIWM and actions it could take. These main actions were:

- **Information sharing:** effectively disseminating information across the sector to improve understanding of both the theoretical principles and the practical application of the circular economy was seen as paramount for many. CIWM needs to continue to increase its message that the circular economy is the big opportunity for the sector in coming years. It needs to showcase benefits, promote good practice and advocate better data including promotion of a compulsory integrated data capture system (to build on the work already done by edoc). Bill Dolan of CIWM Republic of Ireland Centre suggested much of this could be packaged into an interactive and evolving Toolkit for CIWM members.
- **Facilitating:** taking an independent position to bring the right people to the table, facilitating those discussions, and ensuring clarity is brought to the debate up and down the supply chain; liaising with producers and designers to show them the capabilities of the recycling and resources industry.
- **Training:** ensuring that the sector has the appropriate skills to be effective and can move forward in a proactive manner; more detailed training needs assessment is required; seminars showing good examples and new initiatives; possible roadshows around the Centres; training on practical aspects such as product refurbishment.
- **Advocacy:** providing thought leadership and be recognised as an effective player in the debate; important role for CIWM in communicating to UK and Irish Governments.
- **Host for open and honest discussion:** we need to learn from each other and then move on. Time and resources are limited so we need to learn from others' mistakes and not be afraid of failure. CIWM can be an honest broker and facilitator.
- **Researching:** support research into the circular economy in practice, to develop accessible case studies of mainstream examples which clearly evidence the practical application of the concept and resulting benefits.
- **Addressing the image of the sector:** continued vigilance in asserting the modern professionalism of our industries and supporting all efforts to eliminate poor practice, rogue operators, waste crime and illegal exports.
- **Developing alliances within the sector and working towards a united view:** wherever possible build on the shared agenda of sister organisations and promote the direction of travel we need to go in; continuing with a more collaborative approach and showing solidarity as an industry to government policy makers of what we believe is the right way forward
- **Building networks:** essential for knowledge transfer, essential to build an 'extended design team'.



Recommendations for CIWM

CIWM has an important role to play as one of a wider group of stakeholders such as all 5 governments, retailers, designers, manufacturers and researchers. Together our task is to secure the benefits of the circular economy as well as raise the profile of the value of the circular economy. Based on our reflection of the insight provided by many leading figures in the waste and resources sector, we offer CIWM for consideration five key recommendations:

- Develop, lead and co-ordinate a **Circular Economy Action Group** with a focused remit to engage internally with the waste and resources sector and externally with all key players in the supply chain, which will deliver an Action Plan with a routemap assisting organisations to drive towards the transition to a circular economy.
- Develop a **Circular Economy Policy Statement** that clearly signals to outside stakeholders in the resources supply chain the intent of the Chartered Institution with regard to its role in the development of the circular economy.
- Identify opportunities to **embed the circular economy into CIWM's day to day activities**, structures, strategies and future planning.
- Utilise all communication channels such as the website, journal and social media, focusing on the potential role of the CIWM as a catalyst and facilitator, for **engagement and dissemination of circular economy developments and practice** within the whole CIWM membership.
- Invest **further time and support in initiatives**, such as the RSA's The Great Recovery, linking designers and other actors in the supply chain with waste and resource managers, by providing a combination of corporate support from CIWM and development of a network of waste and resource management organisations willing to contribute.





© 2014 The Chartered Institution of Wastes Management

The Chartered Institution of Wastes Management (CIWM), is the professional body which represents waste and resource professionals working in the sustainable waste and resource management sectors worldwide. CIWM sets the professional standards for individuals working in the industry and has various grades of membership determined by education, qualification and experience.

www.ciwm.co.uk

Tel: 01604 620426



Follow us on **LinkedIn**

For media enquiries: pat.jennings@ciwm.co.uk

For technical enquiries: chris.murphy@ciwm.co.uk / tracy.moffatt@ciwm.co.uk

A company incorporated by Royal Charter. Registered in England No. RC000777.
VAT registered No. 232 8003 02. Registered by the Charity Commission No. 1090968.
Registered office: 9 Saxon Court, St Peters Gardens, Marefair, Northampton NN1 1SX.

