

ENABLING CIRCULAR SOLUTIONS FOR CLIMATE INNOVATION: Market research and recommendations for implementing a circular economy training programme

Condensed summary report for pilot training region partners

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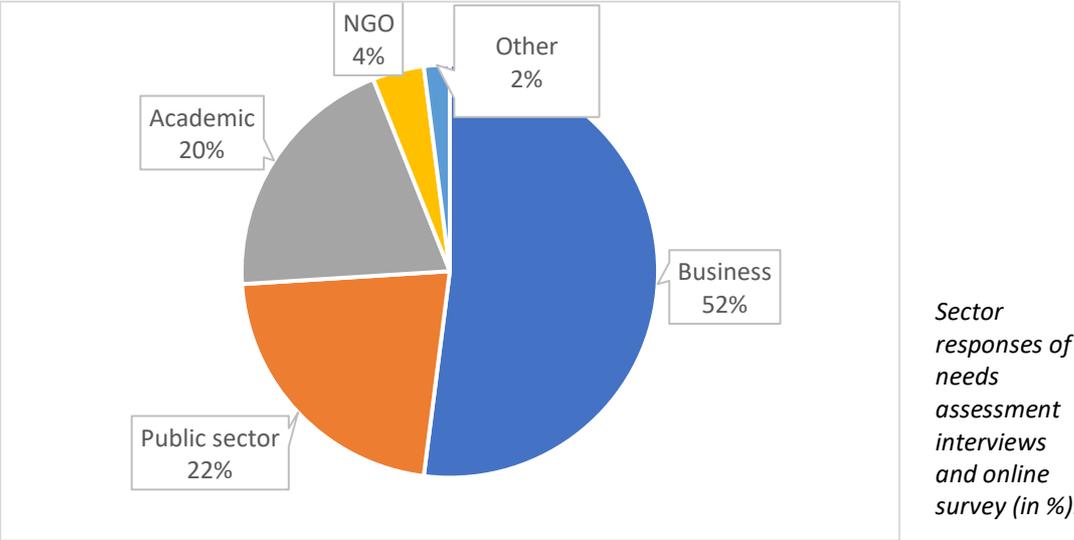
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1. Introduction

The last decade has seen an increasing interest in the topic of the circular economy. Many education activities have focussed on increasing the understanding of circular economy concepts and ideas at a more basic level; however, there is a growing demand to learn about application in practice – ‘how to *do* circular economy’ – from decision-makers in business, civil society, and the public sector.

Climate-KIC has recently completed a feasibility study to understand the existing circular economy training market and to determine the need for a series of circular economy training programmes that enhance its existing climate innovation strategies and actions. Nearly 150 potential training participants, training providers, circular economy experts and public and private sector organisations were involved in the research.



For more detailed information on research methodology, see CE Report, chapter 3.

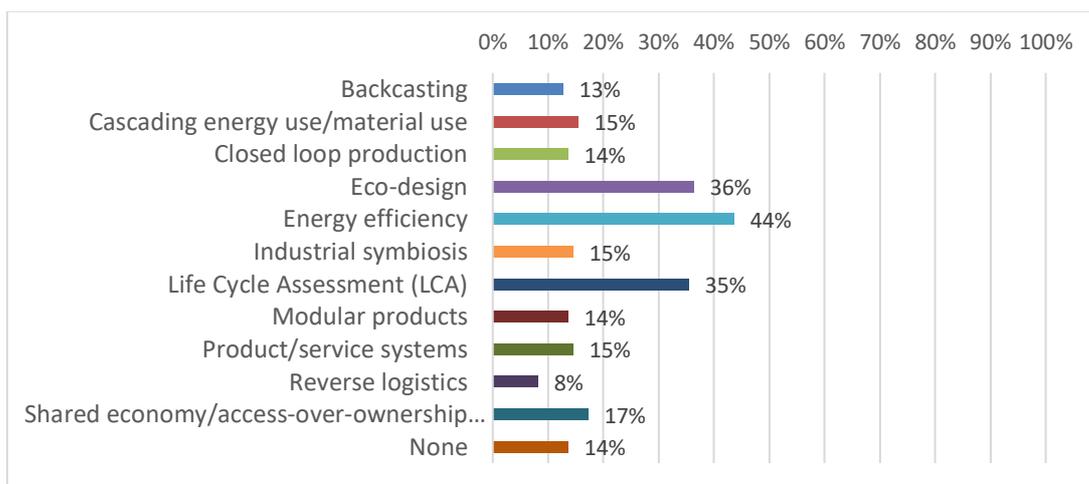
2. Needs assessment and market research results

The research shows that current levels of awareness regarding the circular economy are still generally quite low and relatively narrow. The majority of respondents from both personal interviews and an online survey primarily understood the 'circular economy idea' in the context of waste management, resource efficiency, and increased recycling rates. Only few respondents thought of systems change, such as renewable energy systems; even fewer mentioned new business and ownership models or leasing services.

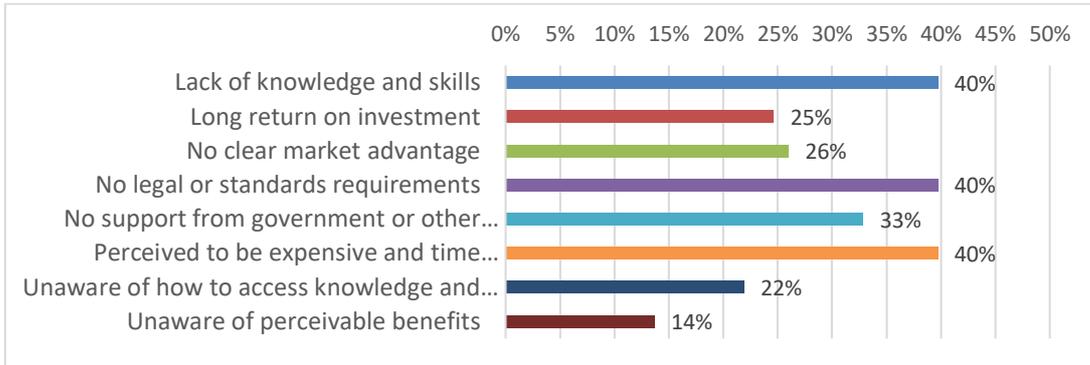
Some of the answers relating to basic awareness include:

- Move away from a linear economy of 'make, use, dispose'.
- Reduce waste and increase recycling.
- Extend product lifetime.
- Closed loop use of resources, cradle to cradle design.
- Reduce CO2 emissions, be carbon neutral.
- Thinking and working from a systems perspective.
- Living more sustainably.
- Repair, re-use and remanufacture.

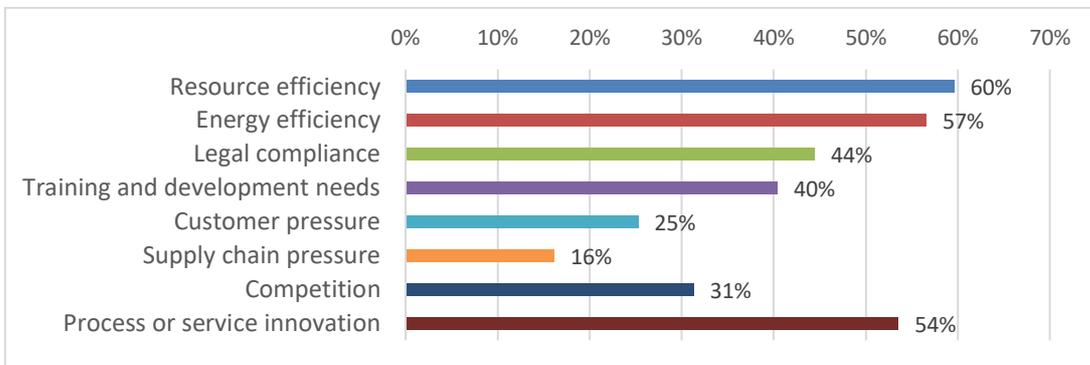
Respondents also commented on what kinds of different circular economy concepts or tools they had used before...



... what they saw as the *main barriers* to using circular economy approaches...

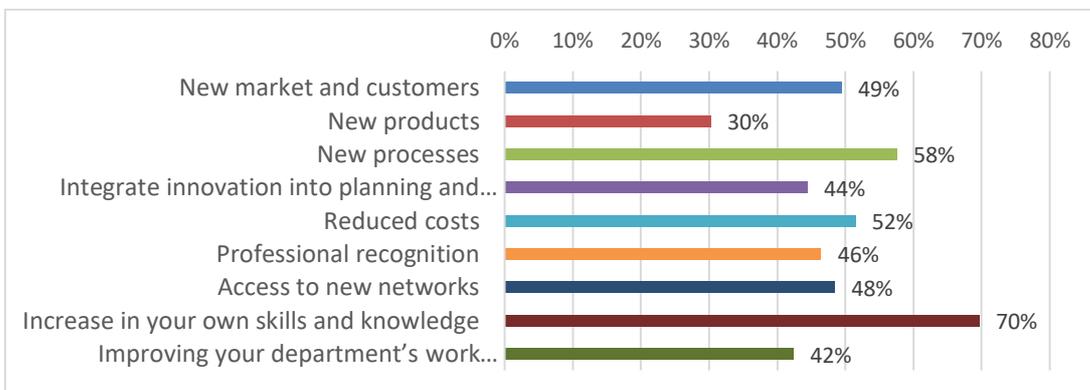


... and what kind of *factors would push the use of circular economy principles* forward in the future.



Despite (or perhaps because of) the generally low level of understanding of the more holistic circular economy concept, there was significant interest in the development of circular economy education and training programmes among a large majority of respondents. Around 70% of respondents felt that using circular economy principles would generate a positive impact for their customers; however, the main driving factors for implementation were expected to be improvements in energy and resource efficiency. Many respondents described how using a circular economy approach can help them develop innovative business models and reduce their impact from future energy and resource availability.

However, there is a variety of different benefits training participants expect to perceive from circular economy activities.

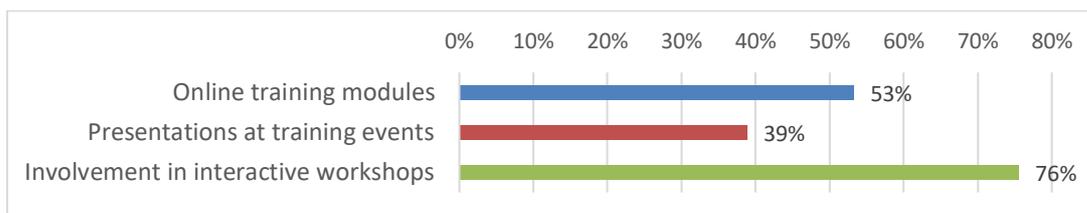


Business managers and public officials/academics: different training expectations

Most respondents, particularly from the business sector, stated that they regarded short, practical, interactive workshops as their preferred training format. They wanted to hear how successful organisations implement and deliver circular economy activities, i.e. how they had identified their own specific challenges, and what they did to overcome them. A smaller group of respondents, mainly from academic and some public sector organisations, were interested in increasing awareness of circular economy concepts and tools at a broader level among the general public, and in connecting different stakeholders.

This implies that the development of any training programme will need to carefully define its target group and thus its resulting specific participants' needs – which might differ significantly from sector to sector – and focus mainly on practical application of circular economy approaches and tools, and their impact on participants' existing challenges.

Overall, the preferred training structure for a large majority of the respondents (76%) was active involvement in interactive workshops. 53% preferred online modules, and 39% stated a preference for presentations at training events. Here, the business sector had a slightly higher preference for involvement in interactive workshops than other sectors.



When asked about who should be involved in leading the training (80 responses), 69% felt that it was very important to include practitioners involved in implementing circular economy activities. In comparison, 39% voted for academic specialists/researchers, 39% for professional training organisations, and 32% for stakeholders that might be involved in future work. Comments (from the business sector) included: "I am mostly interested in meeting practitioners to learn from their experience"; and: "I feel that academic researchers still speak in theories, whereas those actually practicing would provide valuable motivation and insight".

Training programmes that include accreditation were considered more valuable by a vast majority of 76% of respondents. Other comments regarding 'attractive features' that would increase training programme value included:

- "Availability of handbooks and tools" (researcher).
- "Join a circular economy community" (energy sector).
- "There is no circular economy without coordination and cooperation" (public sector).
- "Put specifics and learnings for those who have implemented it, as most articles and cases just show the principles, but not how it was done" (public sector).
- "Focus on clear examples and joint learning with other professionals" (environmental sector).
- "Practical aspects adjusted to specific needs of participants" (researcher).

For more detailed information on research results, see CE Report, chapters 4-5.

3. Integrating circular economy education with Climate-KIC's other activities

In order to create a greater strategic training programme impact instead of a set of dispersed, isolated and unrelated training activities, Climate-KIC could consider integrating new circular economy training activities into its existing place-based strategies. This would enable circular economy training activities to be targeted at a broader range of stakeholders with different interests and agendas, i.e. focused on individual practical application on the one hand, and an increased awareness and deeper understanding of the circular economy approach across a variety of different, interconnected stakeholders on the other.

This approach would also enable Climate-KIC to incorporate their training activities alongside other leading circular economy research, training and development organisations. This approach would also allow for a stronger integration of circular economy concepts with practical climate change adaptation and mitigation measures, and support efforts to make cities more climate-resilient.

Climate-KIC has a number of place-based initiatives that could be adapted to maximise the impact of circular economy training programmes, which would in turn contribute to its Impact Goals, e.g. Promoting Retrofit and Decentralised Energy (Impact Goal 1), Create Green, Resilient Cities (IG2), Recast Materials Production (IG7) and Reduce Energy Emissions (IG8). It might prove particularly productive to focus on existing EIT Climate-KIC Living Lab sites such as the Smart Sustainable Districts network to better integrate approaches that tackle multiple challenges at once.

Furthermore, Climate-KIC already has a multitude of education assets that can be adjusted to be used within a circular economy training programme. Over 80% of respondents stated that certification or accreditation would add value to potential training programmes. Climate-KIC's new Certified Professional programme is currently piloting an assessment approach for competencies in transitions, sustainable innovation and entrepreneurship; this programme could be developed further to include competencies that specifically relate to circular economy skills. The Pioneers into Practice programme brings together professionals from different backgrounds, sectors and experience levels who share an interest in tackling climate change challenges, empowers them by strengthening their climate innovation capacities, and supports them in applying these skills to real-life projects. A focus on addressing local barriers and challenges visible "in the community" would also demonstrate the "real-life", practical application of circular economy approaches and tools.

Finally, Climate-KIC can use its expansive knowledge network developed through its ongoing collaboration and education and training delivery activities to enhance circular economy learning and education. More than 80% of respondents felt that Climate-KIC should develop an online resource repository led by practitioners with regularly updated information on circular economy success stories, tools, innovations and advice. Also, Climate-KIC's existing portfolio of education resources could relatively easily be expanded by making use of the significant amount of existing online resources specifically on the circular economy, and 'teaming up' with the respective providers.

For more detailed information on CE and Climate-KIC's portfolio, see CE Report, chapter 6.

4. Training formats

The project team recommends that initial pilot training activities are developed utilising three different training formats.

1. **Circular Creators** – a repeating series of challenge-based training events that bring together young entrepreneurs and established businesses from different sectors to create and implement innovative business models. This would create a flow of new entrants and course graduates supporting each other’s learning by building circular economy knowledge and capital. The structure could be shaped around an amended Pioneers into Practice approach where participants tackle problems with their respective Hosts while learning new skills. This format could be place-based or sector-specific.
2. **City Loops** – a programme of short, practice-based, interactive workshop approaches for businesses, NGOs and delivery organisations (‘supply-side’ for circular economy approaches) tackling particular climate-related issue with a place-based focus. This would maximise circular economy learning and delivery, with interactive use of online resources.
3. **Circular Enablers** – a network-based training for municipalities, academic stakeholders, policy makers and think-tank organisations who design regulatory frameworks and influence policy (‘demand-side’ for circular solutions). Supported by the engagement of local citizens and civil society organizations, this approach will increase the understanding and application of circular economy tools and concepts while creating a place-based vision and sharing responsibility for sustainable change. Most importantly, it will incentivize circular solutions from a wide variety of stakeholders, including businesses, public service providers and other professionals.

Each of these training formats can be used within a focus of a particular climate change issue, such as sustainable procurement, food supply management, water management or renewable energy. The particular circular economy tools and concepts used in the training will depend upon the issue selected (challenge), type of participants attending (target group) and local circumstances favouring or hindering systemic change.

For more detailed information on training formats and their application to real-life challenges, see CE Report, chapters 7-8.

5. Next steps

As mentioned before, a high demand for relevant circular economy training is apparent, and the majority of respondents feel that Climate-KIC should take a leading role in the development of the training programme. It is important that Climate-KIC focuses its approach around its existing competencies and strengths, illustrating how tackling climate change and climate-proofing cities can contribute to the development of a new circular economy, while simultaneously maximising the use of its broad partner base across Europe. Some of these key partners are already developing circular economy resources that can add value to Climate-KIC's overall education and training portfolio.

Next steps required to implement a new circular training programme include:

- Stakeholder engagement – prioritise key stakeholders identified during research.
- Selection of pilot activity – determine the most feasible training format and challenge for a pilot programme.
- Online resource partnerships – establish Climate-KIC's position within external resources and repositories.
- Feedback to interview and survey respondents – respond to the people who took part in the research.

For more detailed information on existing (online and other) circular economy education and training resources, see CE Report, Appendix A.

Climate-KIC is using the findings of the feasibility report to develop pilot training activities to take place by late 2018. Two to three pilot areas will be selected in collaboration with key partners identified during the research to create a circular economy training programme supporting and strengthening innovative approaches to tackle climate change.