**Innovation for a Circular Economy – findings from a ‘thought leadership’ project undertaken for Innovate UK**

**Overview**

This ‘thought piece’ considers ways in which the concept of Circular Economy (CE) might be redefined within the innovation ecosystem. The findings of this report suggest that a distinction needs to be made between the innovation activities of circular economy SMEs as opposed to SMEs undertaking CE innovation, and that a CE programme for SMEs should be a focus for innovation policy. Through a literature review, a less reductive definition of the CE - traditionally associated with ‘recycling’ - in sustainability innovation, emerges. The aim of this report is to provide insights to Innovate UK about how policy can support a CE paradigm shift that can fundamentally change the social and business mindsets around sustainability and CE implementation.

The central case study underpinning this research is the Welsh Circular Economy Innovation Communities (CEIC) project (ceicwales.org.uk). The CEIC project can be conceptualised as a novel, large-scale innovation system intervention that illustrates the principle of CE centrality to changing society’s approach to legislation, production and consumption of goods and services. In this study, the transferability of learning from CEIC (a public sector focused intervention) is considered as an intervention for SMEs to realise improved innovation collaborations and implications for CE growth. CEIC project learning is viewed through the lenses of Communities of Practice (CoPs); Regional Innovation Systems; business supply chain frameworks; networking organisations; and Circular Business Models. A further case study, the Swedish RE:Source programme, reinforces insights from the CEIC project about the value of a holistic approach based on cross-disciplinary mapping and research to effect a shift in culture and behaviour to drive the CE.

These findings were synthesised around key themes and challenges, potential opportunities for policy exploration and the system level, and discussed with Innovate UK stakeholders. In this study, desk-based research was augmented by a series of interviews with a range of Cardiff Circular Economy Network (CCEN) businesses for their feedback on these findings. Evidence and feedback from the literature review and interviews were synthesised into a framework that can underpin a future research agenda for Innovate UK with regard to CE SME innovation.

**Recommendations**

Building on findings related to firm capabilities, networks, supply chains and business models, innovation systems and transformational change, the framework proposes three fundamental levels of analysis to inform research:

• **individual firms**

• **networks**

• **systems**

To be most effective, future research - and the consequent interventions arising - will need to be cross-cutting and thematic, rather than restricted to a purely CE silo. It will also need to generate standalone projects that are manageable and achievable, with defined and measurable outcomes; it is proposed here that one way to do this is to examine the underlying drivers (and barriers) at each of the three levels.

The benefit for Innovate UK can be summarised as **improved insight regarding what a research agenda looks like for innovation system level interventions designed to enable and enhance CE innovation practice for SMEs**, with the aim of helping Innovate UK identify where and how it might intervene in new future CE pathways, and the role of different policies in relation to the UK innovation system (building on IUK initiatives for net zero, UKRI 2021-25).

Finally, it is suggested that examples of diverse CE application, and perspectives on how to inform education about the CE, would be particularly useful. The key recommendation for Innovate UK is a CEIC-style programme developed for SMEs. The question of who would convene and fund this programme would need to be addressed.