***Transformative Change and Place-based circular economy interventions: implications for theory and practice***

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**Introduction: Purpose and Objectives**

This paper navigates the intersecting realms of Circular Economy (CE) and transformative change literature, shedding light on the subtleties of transformative change directionality and the practical intricacies of CE implementation, particularly in peripheral regions. Policymakers' historical oversight of transformative innovation challenges becomes increasingly critical amid ongoing crises. This study focuses on Wales as an illustrative case, revealing that despite a robust constitutional framework, institutional and capacity constraints impede the full realization of CE objectives. The paper's objectives include emphasizing the imperative of continuous monitoring for CE experimentation and policy learning, and advocating for a shift in governance structures and support systems, transcending mere direction-setting to embrace experimentation.

**Relevant Background Information**

The CE, initially envisioned as a system decoupling finite resource use from economic growth, has gained global attention. Its evolution into a platform for delivering not only resource efficiency but also broader social and environmental benefits is of academic interest (Kirchherr et al., 2023). CE policies are seen as transformative, guiding innovation and economic development policies toward societal change and the public good (Mazzucato, 2013). Concerns persist about the broader social implications achievable through the CE (Jaeger-Erben et al., 2021; Hobson and Lynch, 2016; Moreau et al., 2017). The paper incorporates the Regional Innovation Systems (RIS) concept, emphasizing the role of interactions and collaborations among various actors within a specific geographic region, a dimension often overlooked in innovation discussions (Asheim et al., 2011; Cooke et al., 1997).

**Research Approach: Methods and Data**

This paper adopts a holistic research approach, drawing insights from a distinctive dataset forged from three interconnected projects spanning public and private sectors in Wales (Clifton & Walpole, 2023). Comprising the Circular Economy Innovation Communities (CEIC) program, the Cardiff Circular Economy Network (CCEN) program, and an Innovate UK (ICE) scoping study on CE innovation, this dataset intertwines qualitative methods such as interviews and scoping studies with desk-based research. This amalgamation seeks to provide an encompassing understanding of transformative opportunities and challenges inherent in the Welsh context (Clifton & Walpole, 2023).

**Discussion**

The discussion navigates the transformative landscape shaped by place-based innovation and experimentation initiatives championing circularity in Wales. The Wellbeing of Future Generations Act, 2015 (WFGA), emerges as a linchpin policy framework, elevating CE beyond a mere resource efficiency pursuit to an all-encompassing umbrella concept for innovation. Framing Wales as a CE 'lab' for transformative innovation, the Welsh Government, acting as an 'animateur institution,' grapples with institutional and operational constraints in the transition from direction-setting to effective experimentation and policy learning.

Empirical material harvested from CEIC, CCEN, and ICE projects is scrutinized in the context of the WFGA, unveiling the intricacies and challenges embedded in the current approach (Clifton & Walpole, 2023; Grillitsch & Hansen, 2019). Notably, the CEIC program aimed at public service organizations and the CCEN program targeting private sector actors offer a comprehensive view of the varied stakeholders involved in CE initiatives. Interviews and studies conducted as part of the Innovate UK (ICE) initiative enrich the empirical foundation, capturing the perspectives of firms in Wales regarding CE barriers and enablers.

The challenges identified resonate with broader discussions on regional innovation systems and the need to balance direction-setting with effective experimentation. The case of Wales, as a peripheral and old industrial region, provides insights into the institutional and resource constraints faced by similar localities. Moreover, it underlines the intentional shift towards a radical rethinking of economic objectives, adding depth to the discourse on new path creation.

**Conclusions and Implications**

The paper concludes by weaving together essential themes, theoretical insights, and practical implications. It underscores the urgency for nuanced understanding in transformative change directionality, especially in peripheral regions typified by Wales. Advocating for adaptive governance structures and sustained monitoring, the paper urges policymakers to transcend traditional direction-setting, fostering a culture of experimentation. As a substantive contribution to the transformative change discourse, the paper illuminates insights for policy refinement and confrontation of inherent challenges in CE implementation. The outlined future research priorities pave the way for a deeper comprehension of the dynamic interplay between CE and transformative change (Clifton & Walpole, 2023; Grillitsch & Hansen, 2019). The significance of this research extends beyond Wales, informing policymakers and researchers globally about the complexities of integrating CE into regional development strategies. As the CE narrative unfolds, this study prompts a re-evaluation of policies, offering a roadmap for navigating the transformative journey in peripheral regions and beyond.

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