

Policy recommendations for facilitating an urban and regional circular economy

Van den Berghe, K.B.J.; Dąbrowski, M.M.; van Bueren, Ellen; Williams, Joanna

DOI

[10.1080/2578711X.2024.2418236](https://doi.org/10.1080/2578711X.2024.2418236)

Publication date

2024

Document Version

Final published version

Published in

Going Circular

Citation (APA)

Van den Berghe, K. B. J., Dąbrowski, M. M., van Bueren, E., & Williams, J. (2024). Policy recommendations for facilitating an urban and regional circular economy. In M. Dąbrowski, K. Van den Berghe, J. Williams, & E. van Bueren (Eds.), *Going Circular: Unlocking the Potential of Regions and Cities to Drive the Circular Economy Transition* (pp. 99-108). (Regional Studies Policy Impact Books; Vol. 6, No. 1). Routledge - Taylor & Francis Group. <https://doi.org/10.1080/2578711X.2024.2418236>

Important note

To cite this publication, please use the final published version (if applicable).
Please check the document version above.

Copyright

Other than for strictly personal use, it is not permitted to download, forward or distribute the text or part of it, without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license such as Creative Commons.

Takedown policy

Please contact us and provide details if you believe this document breaches copyrights.
We will remove access to the work immediately and investigate your claim.

Green Open Access added to TU Delft Institutional Repository

'You share, we take care!' - Taverne project

<https://www.openaccess.nl/en/you-share-we-take-care>

Otherwise as indicated in the copyright section: the publisher is the copyright holder of this work and the author uses the Dutch legislation to make this work public.

6. Policy recommendations for facilitating an urban and regional circular economy

Karel Van den Berghe , Marcin Dąbrowski , Ellen Van Bueren  and Joanna Williams 

Keywords: urban planning; spatial planning; circular cities; circular regions



SCALE	RECOMMENDATIONS
<p>International</p> 	<ol style="list-style-type: none"> 1 - Promote the development of standardised approaches to collecting data on waste, material flows and stocks at the national and regional levels 2 - Embrace an integral approach to evaluating the impacts of circular economy initiatives 3 - Invest in research and development of new metrics to capture the social, environmental, economic and spatial dimensions and impacts of circular economy at different levels 4 - Invest in the development of capacity for steering and informing circular economy transitions
<p>National</p> 	<ol style="list-style-type: none"> 1 - Set ambitious circular economy transition agendas and foster a cross-sectoral dialogue to engage the big economic and societal players at the national scale 2 - Incentivise the adoption of circular principles by sub-national governments, companies and citizens through regulation, taxation, finance, and other policy tools 3 - Use circular economy as a strategic backbone for integration of goals and actions across the relevant national policies 4 - Develop national strategies to limit resource consumption 5 - Propose spatial visions and strategies that embrace circular economy as an important factor for national spatial development
<p>Regional / Local</p> 	<ol style="list-style-type: none"> 1 - Nurture territorially-embedded communities of practice to inform policy and spatial planning for circular economy transition 2 - Use interregional or international circular economy knowledge co-creation and sharing platforms to learn and draw lessons 3 - Embrace a 'care-full' approach to circular activities, using them as a vector for social justice and inclusion 4 - Rethink and valorise interconnections across urban, peri-urban, rural areas through the prism of material flows to harness the regenerative potential of circular economy 5 - Strengthen capacities, resources and competences of the regional authorities to provide a strong institutional leadership needed to bring regional stakeholders together to promote the circular economy agenda within the new functional geographies shaped by material flows

Key message

A shift towards a circular city or a circular region entails developing a place-based and critical approach to CE policy that considers the often-overlooked social and political aspects of sustainability, going beyond the technical aspects of resource efficiency and waste management, and incorporates the principles of regeneration, resilience, and justice.

6.1 OVERVIEW

This closing chapter brings together the main messages from each chapter. It formulates a policy agenda for circular cities and regions. It does so by providing a set of recommendations for policy practice. These are addressed at authorities and policy stakeholders at the international, national and subnational levels.

6.2 THE MAIN MESSAGES OF THIS BOOK

The purpose of this book is to explore the concept of circular economy (CE) and its implications for cities and regions. CE is an alternative paradigm to the dominant linear model of production and consumption that aims to reduce waste, reuse resources and regenerate natural systems. It has gained increasing attention from policymakers, practitioners and researchers as a potential solution to the multiple challenges of environmental degradation, resource scarcity, social inequality and economic stagnation. However, CE is not a one-size-fits-all approach, but rather a context-specific and place-based process that requires a holistic and systemic perspective.

Therefore, this book offers a critical and comprehensive analysis of CE with an emphasis on the role of space for CE transition of cities and regions. Current CE policies emphasise closing material loops in industrial processes and economic activities. However, what is overlooked is that the operationalisation of these policies does happen in “space”, at a specific set of locations within a particular urban or regional context, in relation to other locations connected by flows of materials. In other words, space enables, but also limits, to what extent the CE transition can be achieved. What is more, several potential benefits from territorialising CE policies could be reaped by cities and regions when adopting a more place-based and holistic perspective on the matter. These range from harnessing CE activities, to revamping the local or regional economy based on circular business models and innovations, to regenerating the degraded, neglected, and often peripheral areas and rethinking their relations to the core of the urban region, to improving the region’s resilience to geopolitical shocks, or to creating new opportunities for citizens and promoting social justice.

Our definition of a circular city and region expands the techno-economic focus of the current approaches to CE in cities and regions and, instead, proposes a more holistic, spatial and relational

perspective, emphasising the embeddedness of networks of circular activities and flows of materials within specific spatial settings. Hereby, a shift towards a circular city or a circular region entails developing a place-based and critical approach to CE policy that considers the often-overlooked social and political aspects of sustainability, going beyond the technical aspects of resource efficiency and waste management, and incorporating the principles of regeneration, resilience and justice. Building on this point of departure, we then explored this spatial and relational perspective on the circular city and region by diving into four themes, covered by chapters 2–5 respectively: (1) CE as a geopolitical strategy; (2) a “care-full” CE; (3) circular bioeconomy in city-regions; and (4) assessing and monitoring circular transitions in cities and regions.

The main messages of this book are as follows:

- CE is a context-specific process ridden with complexity and uncertainty that requires a holistic and systemic perspective to design and implement adequate policies at the subnational level.
- An “all-hands-on-deck” approach is needed to integrate policies and actions vertically across levels of government and horizontally across sectors and administrative boundaries, to promote transversal learning, overcome the multiple barriers for CE implementation on the ground, and to harness the potential of circular innovations to drive sustainable urban and regional development.
- Cities and regions are key actors and arenas for the circular transition, as they can create new forms of connectivity, infrastructure, and sustainability within and beyond their boundaries. As such, it is at the urban and regional scales that we need to focus our efforts and invest in place-specific policies and strategies to experiment with, upscale and mainstream CE.
- CE can be part of a strategic response to the global resource depletion crisis, geopolitical turmoil and re-/deglobalisation trends by enhancing the regions’ resilience and competitiveness by closing material loops within the regional scale and rendering regional economies less dependent on global value chains, which are increasingly prone to disruptions. Given the (implicit) cherry-picking of, in this case, Europe,¹ the “realistic” implementation of a CE can be a simultaneous solution for the decades-long lost battle against climate change, and the geopolitical dependence of materials, energy and products.
- CE offers opportunities to promote the social dimension of sustainability by fostering and integrating care-oriented relations and processes in proposed circular projects and policies.
- To support the governance of transition towards CE we need to develop new metrics and engage a broad range of stakeholders in a holistic assessment of progress towards transition goals to inform place-based circular policies.

6.3 POLICY RECOMMENDATIONS

Based on these findings, we suggest a range of policy recommendations to accelerate the CE transition and to harness its potential to boost environmental, economic and social sustainable

development of cities and regions. We recognise that the CE transition entails cross-level interdependencies and will require multi-scalar policy efforts, but, for the sake of clarity, we categorised our recommendations according to three levels: international, national and regional. While our recommendations are biased towards the European perspective, many of them can also provide lessons and inspiration for policy change at the national and subnational levels beyond Europe.

6.3.1 International level

As explained in chapter 2, the current geopolitical turmoil that the European Union (EU) is facing can give a much-needed push to shift towards CE. If a narrow perspective on CE prevails (i.e., considering it solely a strategy to address unsustainable resource consumption and reduce environmental impacts by designing out waste), this new paradigm risks following a similar fate as many previous promising but fuzzy ideas that were very enthusiastically received, but then quickly fizzled out due to implementation challenges. This may happen if one remains stuck in seemingly endless debates on definitions and implementation conundrums, as may happen with the concept of sustainability,² eventually risking becoming a subject of political polarisation, harming its potential for operationalisation and mainstreaming. Given the numerous practical barriers, the difficulty in demonstrating tangible positive results of circularity so far, and the challenges in adoption of circular business models and policies that take the concept seriously, this is one possible scenario for the CE concept. That said, in the context of the war in Ukraine erupting in 2022 and contributing to an energy crisis in Europe, the EU formed policy answers to cope with this challenge surprisingly quickly. However, these emergency responses lack in many cases consideration for ecological and social aspects. This is where a window of opportunity opens for moving the EU towards CE that combines resilience and limits dependency, and built on ecological, economic, social and just principles. Though, at the same time, we do not advocate for a local CE in principle. As explained by North,³ and the fifth CE principle explained in chapter 1, localism implies as local as possible. Thus, it does not exclude that in some cases other scales are relevant and other agendas, for example, trust and peace built upon trade relations (cf. the rationale of the EU), do not have importance.

Next, as discussed in chapter 5, the relevant international organisations, such as the EU, Organisation for Economic Co-operation and Development (OECD) or the United Nations's agencies, should promote the development of standardised approaches for collecting data on waste and on material flows and stocks states. Ideally, this should include data at the regional level, which would allow for not only cross-national but also cross-regional comparisons, benchmarking and monitoring of progress towards CE targets at those levels, while providing the regional and local governments with valuable data to design, implement and evaluate place-based CE policies. As we showed, measuring circular activities that go beyond recycling and consider the reuse of materials and goods or capturing the impacts of CE within a specific territory remain methodologically challenging (see chapter 5). This, in turn, points to the need

for actors such as the EU especially — but also the national and subnational governments — to invest substantial resources in research and development of new metrics to capture the social, environmental, economic, and spatial dimensions and impacts of CE at different levels. Without this, we will lack the means to develop, track, evaluate and improve territorial CE policies. Development of adequate metrics is also critical for the (measurement of) success of the implementation of the European Green Deal, putting a strong emphasis on circularity, and for the mobilisation of EU Cohesion Policy funds to support actions accelerating CE transitions.

Another important policy lesson for the EU — but also to some degree for national governments in Europe and elsewhere — concerns the need to invest in the development of capacity for steering and informing CE transitions. This entails rethinking (multi-level) governance through the prism of material flows and their geography, which cuts across administrative and national boundaries. Moreover, the development of evidence-based policy for steering CE transition in cities and regions needs to be informed by integrated assessment tools able to track transition progress in specific territories. The EU should mobilise its existing tools for transnational and cross-regional knowledge transfer — such as Interreg, the European Circular Economy Stakeholder Platform or its transnational research programme Horizon Europe — to experiment with new governance approaches for place-based CE policy and build capacity to develop adequate assessment methods.

6.3.2 National level

The national level was not our central focus across the different chapters as currently much of the ongoing CE policy innovation happens at local and regional levels, while the geopolitical pressures strengthening the case for CE is foremost international — at least as seen from a European perspective. That being said, many CE policy documents that have been developed during last decade are national, and national governments have developed or are developing regulations, labels or policy tools for CE.

We argue that the importance of the national level for CE transition will probably increase in the short term. CE may be trapped in what we might call a “grey zone” between the levels of government. Local CE activities are difficult to scale up and move beyond the initial experimental phase. This may be because of a lack of perceived urgency of the CE agenda by the wider public, lack of regulations or lack of finance to move from experimentation to systemic change. Also, within the EU, national governments are mostly “waiting” for the EU level to show the way forward in terms of implementation and funding of CE policies.

Given the recent geopolitical developments disrupting global value chains, however, the pressure for national governments to translate the European Green Deal into effective policies will increase and CE could become a vehicle for pursuing an integral sustainability agenda and strengthening supply chain resilience. We argue that the national governments should strive

to capture the urgency concerning CE emerging from the international level and help local and regional circular initiatives to flourish.

The national level — and this is true not only for EU member states but also for national governments in other parts of the world — can act as a catalyst and supporter of place-based CE policies of cities and regions. This can be achieved by setting ambitious CE transition agendas and fostering a cross-sectoral dialogue to engage the big economic and societal players at the national scale. Beyond this, central governments have the powers to incentivise the wider adoption of circular principles by subnational governments, companies and citizens through regulation, taxation, finance and other policy tools. They also have the capacity to connect the CE policy agenda to other sectoral policies of relevance, such as energy, climate or industrial policies. We recommend they use CE as a strategic backbone for the integration of goals and actions across the relevant national policies to address the polycrisis (climate, energy, housing, etc.) that the linear economy exacerbates.⁴

Given that cities and regions now operate far beyond the Earth's ecological capacity, we urgently need to move towards systems contained within those (planetary) boundaries. National governments need to provide actors with guidance on how much resources can be consumed to remain within the planet's carrying capacity. This, in turn, requires developing a bold and integrated approach to resource management based on national strategies to limit resource consumption to inform and steer sectoral policies and subnational planning policies (see chapter 4). As part of such an approach, national governments should also consider introducing regulatory tools to improve resource efficiency, for instance, through caps on national resource consumption. Introducing such measures would require treading carefully, though, anticipating the possible backlash against them and the uneven socio-spatial distribution of economic burdens they would entail. In summary, we need strong governmental intervention, backed by a persuasive narrative on circular futures, to radically shake up the current economic model and anchor CE principles firmly on the policy agenda.

Finally, most national governments (unlike supranational organisations such as the EU) have powers and competences in spatial planning. We made a strong case for considering the spatial conditions that can accommodate or hinder circular activities and the spatial implications of these activities. We argue that national governments should develop spatial visions and strategies that embrace CE as an important factor for the national spatial development. This will provide a frame of reference, guidance and tools for deployment of spatial CE policies and strategies at the subnational level.

6.3.3 Regional and local levels

Last but not least, we offer a set of recommendations for cities and regions, which — as we argued in this book — are probably the most important policy actors in the CE transitions.

As explained in chapter 2, currently the operationalisation of CE, on the one hand, scaling-up from the local practical operationalisation (cf. product and built environment) and, on the other, downscaling from the global international policy level, is converging at the urban or regional level. It is not a question of (concrete) “design” or of (abstract) “policy”, but both.⁵ Therefore, we made a case for a more spatial and localised perspective on CE by highlighting the current local to regional characteristics of many CE initiatives and by stressing the need to consider the spatial aspects and networks of CE, which are determined by the patterns, socio-economic networks and relations, and ecological systems being part of urban and regional spatial development. Steering those through spatial planning policies is one of the core functions and competences of local and regional governments. In addition, municipal and regional governments are critical for CE transitions because they can combine the roles of: (1) promoters of CE among private and civic actors through the provision of information, goals and targets; (2) facilitators of connections and dialogue among the stakeholders and levels of government; and (3) enablers of circular transitions by providing regulations, resources and incentives for the relevant local and regional stakeholders to embrace the CE.⁶

While we applaud the efforts that cities and regions are making to support CE activities, we stress the need to keep on innovating and to consider more thoroughly the spatial and socio-economic aspects of CE. For this, cities and regions need to adopt a co-creative approach to gain insights and learn from the perspectives of diverse stakeholders from across disciplines, economic sectors, institutional and administrative boundaries. In the face of complexity and uncertainty related with CE, local and regional officials often lack the capacity and insights to develop evidence and place-based CE policies on their own. Instead, they should seek to nurture territorially embedded communities of practice to tap into a broader pool of knowledge, resources, and actor networks to inform policy and spatial planning for CE. At the same time, we strongly recommend that subnational governments engage in the currently burgeoning interregional or international CE knowledge co-creation and sharing platforms to enable lesson-drawing from experiences of other places.

Moreover, municipal governments in particular should embrace a “care-full” approach to circular activities. This approach can help synergise the positive social and environmental impacts of CE projects and policies within different communities, especially the most vulnerable and marginalised ones (see chapter 3). This promising aspect of CE is currently neglected and municipalities, acting locally and being the closest to the citizens, are best positioned to integrate this approach into place-specific policies, spatial plans and strategies to promote CE. Otherwise, the risk is creating CE “winners and losers”, with the most economically disadvantaged disproportionately in the latter camp, leading to further fostering of social and political divisions.

Finally, regional governments play an especially important role in promoting a shift towards CE by connecting diverse activities in the different areas composing a region, from the urban

cores to the fringes, from peri-urban to rural areas, through hard and soft regional infrastructures. Networks of circular activities, related to extraction, transporting, processing and consumption of materials, are embedded within regional patchworks of those spaces. Regional or metropolitan authorities are able to shape and influence the interrelations between those places and to develop spatial strategies at the regional scale. We recommend that regional policymakers and planners rethink those interrelations through the prism of CE and, especially, its regenerative potential (see chapter 4) and interdependencies related to flows of materials across the regional space. This, in turn, requires developing capacities, resources and competences of the regional authorities to provide a strong institutional leadership needed to bring regional stakeholders together around the CE agenda and working with new functional geographies shaped by waste and material flows that cut across diverse regional spaces and across administrative divisions.

7 IN CLOSING

We hope these policy recommendations will help policymakers, practitioners, researchers and citizens to advance the CE transition in cities and regions in Europe and beyond. We also hope this book inspires further research on CE from different disciplines and perspectives, especially on the under-researched spatial, geographical, social and even political dimensions of circularity. We strongly believe that CE is not only a technical and economic challenge, but also a social and political opportunity to create more sustainable futures for cities, regions, Europe and the world.

Practitioner's perspective

There is a noticeable shift from a linear to a circular approach to economic and spatial development in cities and regions. While ambitious policy goals are set, the implementation of circular policies often falters, though. Technologically, we are continuously making scientific discoveries, and companies are capable of innovating, but the practical application of these innovations and implementation of urban and regional policies to support them often faces challenges related to existing laws and regulations. For example, the Dutch building code (Bouwbesluit) does not force builders to build with a circularity principle, while the spatial planning law (Omgevingswet) does not explicitly require adopting circular principles in spatial development. Rethinking laws to enable circular innovations is thus critical for delivering effective circular policies.

The City of Amsterdam, along with its partners, has developed a knowledge platform called CIRCULAW (<https://www.circulaw.nl>) to help governmental actors make better use

of regulations to promote CE by mapping out the existing laws and regulatory instruments across levels of government. This allows for identifying legal gaps that matter for circularity at different levels, for clarifying the responsibilities of the different actors within specific material flows, and for promoting vertical collaboration among the different governmental actors. CIRCULAW also seeks to promote structural collaboration with the national government to establish a feedback loop between law development and enforcement. This, in turn, provides a basis with which to formulate concrete suggestions for new legislation, giving the subnational authorities more agency in shaping an enabling environment for circularity.

CIRCULAW keeps evolving and developing, particularly in areas such as timber construction. The goal is to reinforce cooperation on regulations to support circularity at all levels of government, initially nationally and eventually internationally. After all, we are all working towards the same circular objectives.

Joost van Faassen is a Strategic Urban Designer for the Municipality of Amsterdam

NOTES

- 1 Cf. Latour B (2022) Is Europe's soil changing beneath our feet? *Géopolitique, Réseau, Énergie, Environnement, Nature*, 2: 92–97. <https://geopolitique.eu/en/articles/is-europes-soil-changing-beneath-our-feet/>
- 2 van Bueren E and De Jong J (2007) Establishing sustainability: Policy successes and failures. *Building Research & Information*, 35(5): 543–556. <https://doi.org/10.1080/09613210701203874>
- 3 North P (2010) Eco-localisation as a progressive response to peak oil and climate change – A sympathetic critique. *Geoforum*, 41(4): 585–594. <https://doi.org/10.1016/j.geoforum.2009.04.013>
- 4 Cf. Tooze A (2022) *Welcome to the World of the Polycrisis*. Financial Times. <https://www.ft.com/content/498398e7-11b1-494b-9cd3-6d669dc3de33>
- 5 Cf. Van den Berghe K and Vos M (2019) Circular area design or circular area functioning? A discourse-institutional analysis of circular area developments in Amsterdam and Utrecht, The Netherlands. *Sustainability*, 11(18): 4875. <https://www.mdpi.com/2071-1050/11/18/4875>
- 6 Organisation for Economic Co-operation and Development (OECD) (2020) *The Circular Economy in Cities and Regions*. Paris: OECD. <https://doi.org/10.1787/10ac6ae4-en>