

A smiling man and woman are looking at architectural plans. The man, on the left, is wearing a checkered shirt and has a beard. The woman, on the right, is wearing a denim jacket. They are both smiling and looking at the plans. A large circular graphic is overlaid on the image, containing the title and subtitle.

CIRCULAR JOBS IN CITY GOVERNMENTS

People driving the circular
transition of urban
governance

2023

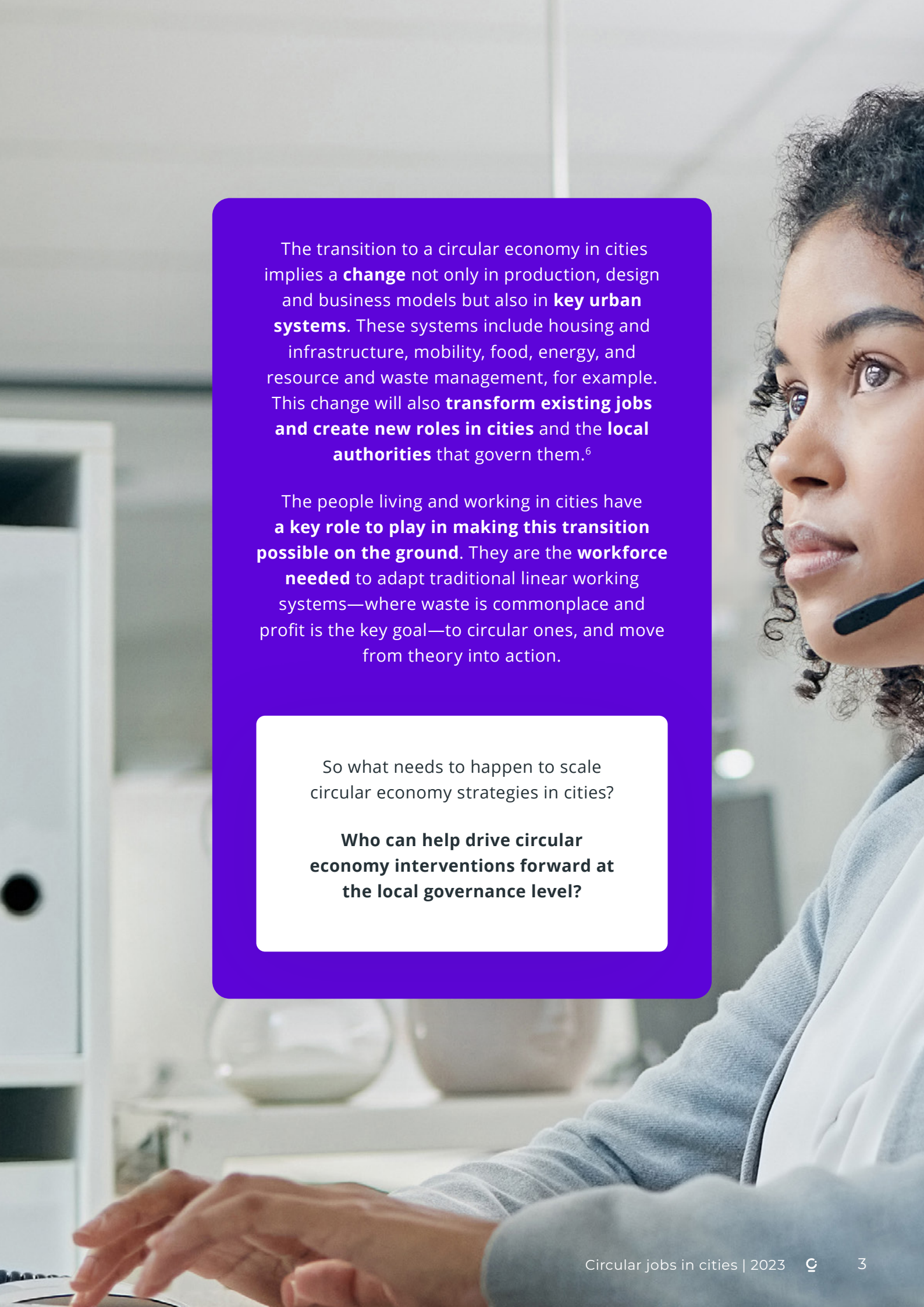
CIRCULAR JOBS IN CITY GOVERNMENTS

Today, some 56% of the world's population—4.4 billion inhabitants—live in cities. This trend is set to continue, with expectations that the urban population will more than double by 2050. By then, nearly seven out of ten people worldwide will live in cities.¹

Although they provide people with homes and livelihoods, cities are a major contributor to the climate emergency: globally, our cities consume 75% of the world's natural resources and produce 50% of solid waste as well as 80% of greenhouse gas (GHG) emissions.² Cities are also hubs of **valuable financial, social and human capital**. This makes them prime places to demonstrate and implement innovative solutions for tackling and adapting to climate change. These solutions can be rooted in the circular economy, a system where waste is made obsolete, materials' value is maintained at the highest level possible, and natural systems are protected and regenerated.

Circular economy interventions can be an instrumental tool for **city-level governance** to achieve the Sustainable Development Goals and make positive changes for the local environment, economy and people, by, for example:

- Improving access to resources locally by **repairing, reusing and recycling materials**, as well as using regenerative resources;
- Lowering GHG emissions by **prioritising regenerative energy** sources, such as wind and solar power;
- Increasing the availability of public transportation by adopting new solutions that **optimise routes** and enable more and more **shared mobility** options;
- Protecting and enhancing biodiversity by implementing **nature-based solutions** (green roofs and urban green belts, for example) and efficient **land use management**;³
- Improving waste management and boosting savings on landfilling costs by **using waste as a resource**;
- Generating new job opportunities by supporting business development through **innovation, partnerships and public procurement**.^{4,5}



The transition to a circular economy in cities implies a **change** not only in production, design and business models but also in **key urban systems**. These systems include housing and infrastructure, mobility, food, energy, and resource and waste management, for example. This change will also **transform existing jobs and create new roles in cities** and the **local authorities** that govern them.⁶

The people living and working in cities have **a key role to play in making this transition possible on the ground**. They are the **workforce needed** to adapt traditional linear working systems—where waste is commonplace and profit is the key goal—to circular ones, and move from theory into action.

So what needs to happen to scale circular economy strategies in cities?

Who can help drive circular economy interventions forward at the local governance level?

EIGHT EXAMPLES OF KEY ROLES THAT DRIVE CIRCULAR ECONOMY IN CITIES

These eight key roles exemplify the jobs needed throughout the local government system to enable a transition to a circular economy. They are complementary and rely on each other, to ensure that circular economy principles trickle down throughout government departments and become a reality in cities worldwide.



1. ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) STRATEGISTS AND SUSTAINABILITY ADVISORS

Creating a circular economy strategy for the city can provide the direction needed to enable local stakeholders, both within and outside the municipality, to act and engage.⁷ A circular economy strategy can shape a **holistic perspective** and break silos across local governments. The day-to-day maintenance and operation of public services and amenities can be done more efficiently through circular strategies: the 5R principle, for example, which encourages us to **refuse, reduce, reuse, repurpose, and then recycle**.



2. FINANCIAL ANALYSTS AND ACCOUNTANTS

Through cross-sector collaboration and the rethinking of existing approaches in relation to value, impact and risk, finance professionals and accountants can support city governments in spearheading the systemic shift to a circular economy.⁸ Experts in finance can **establish the financial parameters and conditions** that will enable their municipalities to move toward a circular economy. Accountants can play a key role in **estimating the potential financial benefits of the circular economy**, such as the reclamation of production by-products and product losses, energy savings, and equipment sharing between local businesses.⁹



3. RESEARCH, DATA AND GEOGRAPHIC INFORMATION SYSTEM (GIS) ANALYSTS

By **examining and capturing lessons learnt from city-level analytics**, project specialists, urban planners, developers and practitioners alike can better **understand how data- and tech-enabled innovations can be utilised to enhance the efficiency of municipal governance**.¹⁰ For instance, the use of calculation tools (such as Building Information Modelling (BIM) software or the Building Research Establishment Environmental Assessment Method (BREEAM)) in the planning phase of development projects can ensure that well-informed decisions regarding building techniques, materials and reusability are made. Here, collaboration between private and local stakeholders should also be considered to come to mutual agreements.



4. PROCUREMENT OFFICERS AND PURCHASING MANAGERS

By **reconsidering city residents' actual needs and seizing opportunities to reduce the quantity of goods and services consumed at the source**, procurement officers and purchasing managers in local authorities can **integrate new purchasing criteria** into their policies. This may include opting for services rather than products or choosing refurbished or recycled products over new ones.¹¹



5. URBAN PLANNERS AND ARCHITECTS

The early planning phase of local development projects poses an opportunity to ensure a **more inclusive, effective and sustainable use of urban space, materials and resources**. By making use of various departments' expertise at an early stage, urban planners can consider and link diverse **sector-specific needs** such as waste management, energy, housing and transportation in development projects. Many cities are already home to buildings and infrastructure that could be **repurposed, retrofitted or expanded**; architects can use these to make the most of the materials that are already available and make conscious design decisions for the future.



6. COMPLIANCE PROMOTION SPECIALISTS AND ENVIRONMENTAL AUDITORS

Compliance promotion specialists and environmental auditors working either within or alongside local authorities can put pressure on all local development projects to fulfil ESG requirements. Technical specifications for **pollution control, industrial waste management and environmental compliance** as well as the facilitation of **industrial symbiosis**—where one industry's waste becomes another's resource—can be **assessed and regulated through the authorisation of industrial permits**. Supervision of finalised development projects can ensure that requirements set in the permit stage have been fulfilled.



7. URBAN MINERS

Valuable materials already available in urban spaces, such as beams, bricks and wood, can be **recovered and reused** throughout construction and demolition processes. This role would be carried out by so-called urban miners.¹² Logistics professionals can also collaborate with urban miners to recover end-of-life products that would otherwise become waste, and create a network of intermediaries that can contribute to the recovery and repair of products, and refurbish and recycle product components.¹³ Ensuring that flows of recovered materials are in sync with the production of materials will be important.



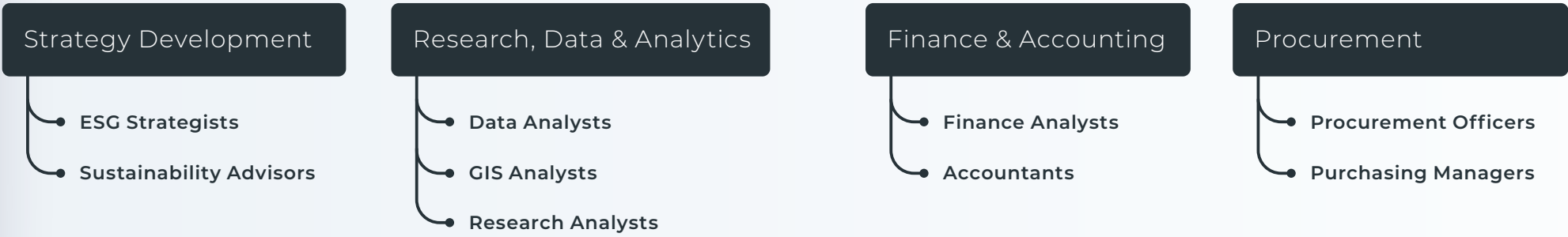
8. MANAGERS, FACILITATORS AND COORDINATORS

Managers and coordinators, be they facility managers at recycling plants, project managers at city councils, or industrial symbiosis facilitators, can **bridge the gap between the strategic/theoretical development and the implementation of circular strategies and policies** across different municipal departments. They can ensure that circular strategies and policies are implemented into each department's working methods and processes. It is equally important for the managers and coordinators to provide feedback and reviews from the departments to the strategic levels to improve the overall steering of the local government.

KEY CIRCULAR ROLES AT THE CITY-GOVERNANCE LEVEL

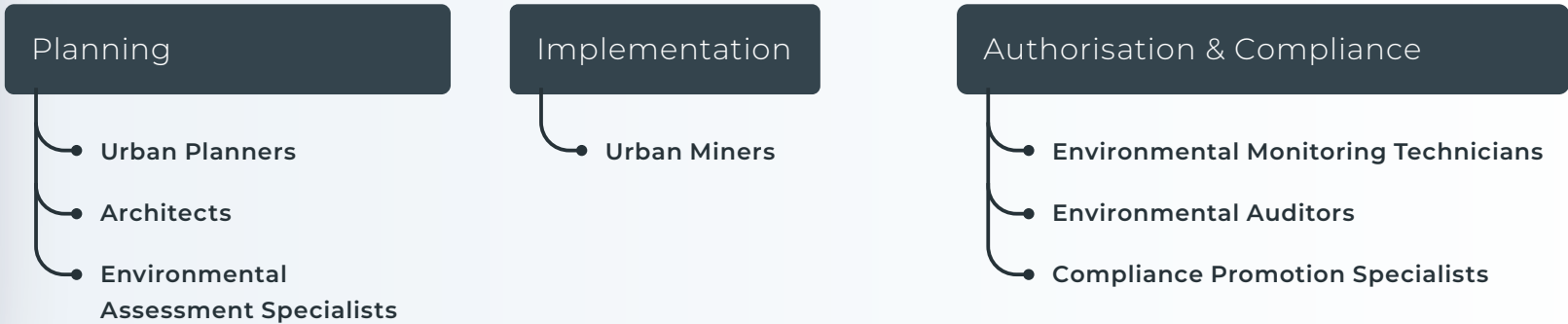
The strategic level contains the roles needed to develop cross-department principles steering the entire organisation towards a common goal, while also creating the conditions needed to enable a circular transition throughout the local governance levels.

○ Strategic Level



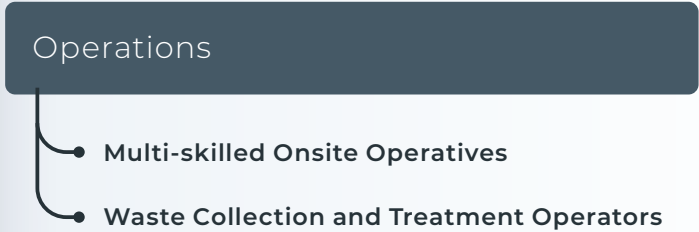
The project level shows the phases of any urban development project, from idea to implementation on the ground. Resources from demolition projects in the implementation phase feeds back into the planning phase to form part of new development projects.

○ Project Level

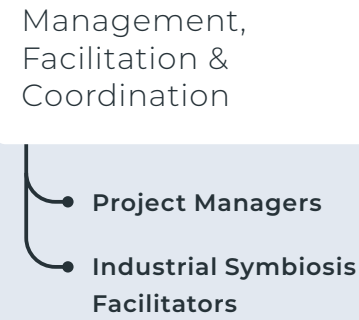


The operational level sits at the heart of all local governments and includes the maintenance and delivery of public services on a daily basis. It includes everything from renovation of public buildings and infrastructure to waste collection.

○ Operational Level



Managers, facilitators and coordinators can bridge the gap between the strategic development and the implementation of circular strategies and policies across different municipal departments, incorporating feedback and reviews to improve the overall steering of local government.



BECOME A CLIMATE-RESILIENT CITY THROUGH THE CIRCULAR ECONOMY

The circular economy is powered by people. Matching skilled people with the jobs and opportunities that the circular economy provides for cities is key at all levels: from strategy development and the planning of a development project, to assessing permits, facilitating the reusability and logistics of materials, to the day-to-day management of local services on the ground. In order to coordinate and accelerate these efforts, city governments must ensure that they have the right competences, resources and tools needed to adjust their work to circular principles across different departments.

City governments cannot transform the city alone: stakeholders from the private sector, academia and civil society organisations are all crucial for realising a just and inclusive transition to a more circular economy in cities. Becoming a climate-resilient city will depend on collaboration, knowledge sharing and data-driven insights.



REFERENCES

1. World Bank. (n.d.). Urban Development: Overview. Retrieved from: [World Bank website](#)
2. ARUP. (n.d.). The role of cities in the transition towards a circular economy. Retrieved from: [Arup website](#)
3. Circle Economy. (2021). Can circular cities boost biodiversity? Retrieved from: [Circle Economy website](#)
4. Circle Economy. (2021). *How social partners can ensure a just transition to a circular economy*. Amsterdam: Circle Economy. Retrieved from: [Circle Economy website](#)
5. OECD. (2020). *The circular economy in cities and regions: Synthesis report*. Retrieved from: [OECD website](#)
6. Laubinger, F., Lanzi, E. and Chateau, J. (2020). *Labour market consequences of a transition to a circular economy: A review paper*. OECD Environment Working Papers. Paris: OECD Publishing, no. 162. Retrieved from: [OECD Website](#)
7. European Investment Bank. (2022). *Towards European circular cities: a guide for developing a circular city strategy*. Retrieved from: [European Investment Bank website](#)
8. Circle Economy. (2022). Financial accounting in the circular economy: redefining value, impact and risk to accelerate the circular transition. Amsterdam: Circle Economy. Retrieved from: [Circle Economy website](#)
9. Circle Economy. (2022). *Roadmap circular finance 2030*. Amsterdam: Circle Economy. Retrieved from: [Circle Economy website](#)
10. Gover, J.A. (2018). Analytics in city government: *How the Civic Analytics Network cities are using data to support public safety, housing, public health, and transportation*. Retrieved from: [Harvard website](#)
11. Ellen MacArthur Foundation. (n.d.). Circular public procurement: a framework for cities. Retrieved from: [Ellen MacArthur Foundation website](#)
12. Metabolic. (2021). Urban mining and circular construction – what, why and how it works. Retrieved from: [Metabolic website](#)
13. Beames, A., Claassen, G.D.H. and Akkerman, R. (2021). *Logistics in the circular economy: challenges and opportunities*. Wageningen University and Research. Retrieved from: [WUR website](#)

DO YOU WANT TO LEARN MORE ABOUT HOW TO HELP YOUR CITY BECOME MORE CLIMATE RESILIENT THROUGH THE CIRCULAR ECONOMY?

At Circle Economy, we have supported over 30 cities around the world in creating circular strategies, and have helped more than 80 businesses and 20 nations to ensure that the transition to a circular economy positively impacts work and workers as well as the environment.

Request a Circle City Scan to guide your city on its journey to circular economy. We use data to inform multi-stakeholder decision making and assess the jobs and skills needed to kickstart or accelerate the transition in your city.

Explore the Circular Jobs Monitor to learn about the number and range of circular jobs sorted by circular strategy and sector, from the municipality to country-level.

Explore Ganbatte for data-driven insights into cities' consumption, emissions and employment that can be used to kickstart their journeys and increase circular activities locally.

