

CIRCULAR BERLIN

Design & Development:
Circular Berlin

Year:
2018

Location:
Berlin, Germany

More info:
www.circular.berlin

Scales:
City

Resources:
Biological Materials, Technical
Materials

Design Approaches:
Regenerative design

R-Strategies:
Rethink

Aspects:
Resource Flows, Management,
Stakeholders



Circular Berlin is a bottom-up and community-led initiative in Germany whose mission is to progressively transform Berlin into a circular city by providing knowledge, fostering networking, and bringing sustainable start-ups and businesses together. The non-profit organization (NGO), called Circular Berlin, started in 2018 and is related to the Municipality of Berlin. Since then, the NGO has envisioned Berlin as a resilient, citizen-oriented city where resources are locally managed, and value is maintained through different

transformations. Therefore, through the European-financed initiative EIT, under the Horizon 2020 program framework, started in 2018, the Circular Berlin project aims to operate across sectors with an increased potential to have an impact in the circular transition: the built environment; food and biomass; textile and fashion; and materials and products. Lastly, Circular Berlin host events where the community meets, debates, and exchanges ideas on circularity. The discussion ranges from sharing knowledge to collaborative planning

sessions, and open-source digital tools have been built which allow information to be exchanged more quickly.

1. Conceptualization of Circularity

What is the circular idea, theory and approach behind this project? What is the aim and purpose of it?

The *Circular Berlin* project is rooted in reshaping Berlin's metabolism by integrating the concept of circularity in various areas across the city through research, community-building and practical programmes. The project aims to develop a decentralised approach for scaling up local *Circular Economy City* solutions through open-source and transparent processes, which other locations could quickly adopt.

To achieve this goal, stakeholders and inhabitants from different professions, such as designers, architects, and economists, have founded this non-profit organisation to establish a sustainable future for Berlin. The primary idea is to offer an engagement platform to connect interested inhabitants, start-ups and companies in every conceivable way, from waste streams (waste from one company can be reused by another) to simple information exchange.

Secondly, the project identified which kind of material flows and required infrastructure for the key sectors relevant to Berlin / Brandenburg are necessary to steer the circular economy strategy for Berlin, close resource loops by enabling the implementations of the 10 R-strategies, and initiate pilot circular projects in the city.

Thirdly, the project develops opportunities and practical experience for community members to empower them to be actively involved as future experts in local operations in Berlin / Brandenburg.

Lastly, the project builds a network of circular organisations, civil society initiatives, academics and practitioners in Berlin, aiming to raise awareness of the issues at hand and provide resources and knowledge to initiate more circular economy activities.

2. The Sectoral Dimension

On which economic areas is the circularity focusing? What kind of system, supply chain, and flows is the project addressing?

Berlin is a growing capital with a population of around 3,5 million. The increase in population resulted in an increased demand for affordable housing and boosted the construction sector. Thus, the construction and infrastructure sectors remain crucial for the transformation towards a circular economy. Consequently, there is also an increased demand for water, energy, and food. The current agenda in the city is the transformation towards social and cultural inclusion, promotion of the smart city concept and innovation sector and pushing the green agenda, summarised briefly through the zero-waste strategy. In addition, it is essential to underline that Berlin is NOT a productive city, importing most of its products. Because they are already localised, incorporating circular economy transformation could contribute to future generations, especially in the construction and agriculture sectors.

In order to tackle the issues mentioned above, the founders' approach of *Circular Berlin* is to transition the entire city towards circularity and raise awareness on the topic. The project focuses on five sectors: the built environment and infrastructure; food; fashion and textiles; consumer goods and manufacturing. Due to the early stage of the circularity transition, the project adopted a similar approach across different sectors. Each sectoral dimension was analysed by observing its status quo, existing initiatives and best practices. Then, the project identified how to create synergies and improve a circular transition further.

The project focuses first on developing a digital and physical platform to increase the visibility of local initiatives and to connect circular businesses. The platform remains the first tool for communication within the Berlin circularity scene. It provides visibility for the local actors, as they are part of the circular economy movement in Berlin. Through the platform, the project collected circular best practices in Berlin. They are ordered by the project type and the circular value chain, identifying their main potential. Such an approach helps not only to identify current know-how in the circular economy but also to see how to build an ecosystem

which is possible across the value chain.

Within the construction and infrastructure sector the drivers of change are the architects and planning agencies. However, the demand for a more circular approach should derive from the building owners, who are not aware of the circular economy agenda. New construction on public land ownership can generate the opportunities and freedom to experiment and develop long-term solutions for a circular built environment in Berlin. *Circular Berlin* also identified several projects for water recycling systems. However, although the request for future construction projects is evident, intervention to recycle greywater and recover the heat for buildings still requires a push from the construction sector.

In the textile and fashion sector, there is local acknowledgement of circularity, but this remains on a small scale. *Circular Berlin* is currently trying to foster collective public procurement in the city, which helps individual initiatives establish a circular ecosystem.

In the food sector, the focus is on food waste prevention in catering and kitchens. *Circular Berlin* initiatives are currently identifying two districts where projects could be developed and implemented. Simultaneously, together with the Berlin Council's interest, the project is working on large-scale projects to recycle waste streams from biomass

3. Sustainability Framework & Transition Concepts

What is the context of the project? What is the socio-economic, legal, and political structure established to develop the project?

The Circular Berlin project is part of the signed *Circular Cities Declaration*. *The International Council for Local Environmental Initiatives (ICLEI)* promoted this declaration and is now part of a Europe-wide city network. *This project also received funding from the European Institute of Innovation and Technology (EIT) – Horizon 2020*. It is also linked to the Technical University of Berlin, and the topic is embedded in various city policies, such as waste management and “Nachhaltiges Bauen” (Building Sustainable).

Being part of different, more extensive initiatives has shaped *Circular Berlin's* transition approach, focusing on understanding which circular value chains and initiatives already exist and could be developed across the city. The project also identified current collaborative partners and businesses in Berlin on each sectoral dimension. Several stakeholder groups were selected broadly:

- Commercial projects
- Non-commercial projects (research or non-profit)
- Possible networks that already play an active role in the promotion of a circular economy

This approach resulted in identifying 100 different initiatives operating directly or indirectly in the Berlin circular economy area. Initiatives were mapped from research, business, NGOs and supportive sectors, such as consulting or investment. Their numbers were as follows:

Food and agriculture - 41 initiatives
City and infrastructure - 35 initiatives
Textile and fashion - 31 initiatives
Consumer goods - 30 initiatives
Manufacturing - 22 initiatives

In May 2018, the project conducted numerous interviews (at least 30) with representatives of businesses and NGOs in some selected areas of Berlin. The main objective was to identify what local initiatives needed to be able to act more widely on the city level. The stakeholder groups were narrowed down:

1. Businesses and industries as innovation runners;
2. Research and institutions as innovation and solution developers;
3. The recycling sector as the sector mostly allocated for material streams;
4. Process organisations, such as the political scene and local networking organisations

Important in the project was identifying the physical spaces for transformation practices. Currently, the *Circular Berlin* initiative has identified five potential spots, but there has only been communication with one of these so far.

A significant part of *Circular Berlin's* work is to bring visibility to grassroots initiatives. Because of this, they have organised

several events, such as the *Open Source Circular Economy days* and a panel discussion on how to make Berlin a circular city. Working with a similar approach across the different sectors had two primary outcomes:

- 1 - visibility for policymakers is essential for ensuring that the circular economy movement does not stay in a heterogeneous system;
- 2 - cross-sectorial collaboration is essential as this is the only way to work with localised, effective material streams.

4. The Social Dimension

Is this project bottom-up or top-down in its approach, and what role do local inhabitants, stakeholders, and circular innovators play? Does it have a flagship / pioneering character for others? Does this project view people as consumers, users, or pro-sumers in the context of a circular economy? Does it have a pioneering role, with impact beyond its region?

Circular Berlin is based on a decentralised, bottom-up approach; the *Municipality of Berlin* has no higher coordination. Often, many activities included in the project are community-led. The community works as an articulated and interconnected ecosystem. Each involved organisation takes on a supporting role in transforming Berlin into a circular city by:

Organizing workshops to connect various sectors, from food to clothes enterprises and via engaging formats like *Learning Circles* and *Circular Connect*. This promotes community knowledge around circularity, facilitating profound experiences and inspiring networking among members.

Public lectures and discussions to raise awareness in the community.

Setting up a network by connecting (circular) businesses.

In 2023, the *Circular Berlin* project fostered new collaboration with startups, businesses and communities as: *Commown*, *Eolos*, *NochMall*, *Korg Berlin*, *Freiraum in der Box*, *New Standard.s*, *Zero Waste Your Life*, *ildsjeler.studio*, *Sustainable Design Center*, *Pentatonic*, *Creative Climate Cities*, *Wista Management GmbH* and *Atelier Gardens*. This growth propelled the project community

to 140 enthusiastic advocates dedicated to advancing the circular cause in the city and sharing their knowledge with residents.

5. The Territorial & Spatial Dimension

What is the scale of the project? Are urban planning policies design strategies cross scale? If yes, how and which flows are involved? What is the role of space and territory in this circular project?

The project focuses on the city scale. It isn't located in a specific area of Berlin, but it includes every district. The project tries to reach as many citizens as possible to spread the ideas of the circular economy across the city, transforming these into actions. *Circular Berlin* aims to accelerate the transition towards circularity through the joint development of practical and scalable solutions on a large scale on the local level.

Since Berlin is the capital of Germany, achieving circularity could set an important example for other cities and areas in the country. Encourage them to start thinking about and implementing circular processes. However, today Berlin is not a productive city, importing most of its products. So, on a spatial level, the project has found an opportunity to close loops of resources locally in sectors such as the built environment, food, textiles and agriculture. For instance, the project fosters recycling greywater and heat recovery for buildings in the same district. In the textile sector, the project aims, in the long term, to enable collective public procurement in the city, which helps individual initiatives establish a circular ecosystem.

6. Assessment & Monitoring

How are strategies and policies monitored and evaluated? How is the qualitative and quantitative success of a project evaluated?

As *Circular Berlin* acts as a hub of circular knowledge and resources, they put much effort into documenting the projects they are involved in and making this information available on their platform. Each year, they also publish an annual report which summarizes key changes, such as new partners and progress of projects.

Colophon

Contributor(s):

Cecilia Furlan
Laetitia Augustyniak
Mariette Overschie
Kim Sinnige

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