

CIRCULAR LEUVEN

The circular city of Leuven. What does it mean?
How would it work?



Pop-Machina receives European funding under the Horizon 2020 Research and Innovation Programme, grant agreement 821479.

Contents

- 5 Circular?
- 6 Circularity in Every Sense of the Word
- 8 Circularity at Every Level
- 10 Pioneering Leuven
- 14 Creating Opportunities Through an Urban Circular Strategy
- 16 Specific Action
- 21 What Next?



Sociaal Atelier Workshop © Sociaal Atelier Leuven

**We use far too many materials.
We use them to make things.
Then we throw them away.
And we start all over again.
It doesn't have to be that way.**



Circular?

What we aim to do, is to turn that straight line into a circle or **loop**.

What if you designed a building that allowed you to simply extract the components later and use them to make a new building? What if you made the building easy to modify for a new function? Like a set of building blocks, it would keep re-entering the loop.

The term **circular** crops up a lot these days. It is the alternative to 'linear', and it is used to describe a cycle. It may seem complicated, but the principle is actually quite simple.

Today's economy is essentially 'linear' or 'straight line'. Consider a **'building'**:

Far from the city, raw materials are extracted from the ground.

The next step is to process and transport them to the city. Once there, they are used to construct a building, which will stand for x amount of years. At end-of-life the building is demolished and the original materials are removed from the city as waste. This process is repeated for every new building we construct.

In these examples we think of the city as a central junction, intersected by streams that either run straight through (linear) or stay in the city (circular). **A town can be a driver to steer our economy a different way.** A way in which materials are not wasted, and climate change is not induced. An economy that delivers sustainable prosperity, within the limits of the planet.

We know that decisions about how we use our raw materials have an effect on greenhouse gas emissions. A circular economy could contribute significantly to the **climate neutral city** we envisage. It would allow us to establish a new type of economic activity in our city, and provide new employment opportunities.



Circularity in the makerspace in the Vaart zone © Henderyckx Fotografie

Circularity in Every Sense of the Word

The term circular is used widely, and it covers a variety of practices. One implication, as we have already said, is the need to **rethink our product design**. It seems obvious that a telephone, for example, should be made easy to repair, or its parts made easy to replace as a module. It should be designed so that its materials can be easily extracted.

Circularity implies a new understanding of 'ownership' and 'use'. In the case of a shared car, for example, you pay for the privilege of 'driving' it, rather than owning it. It will end up being used by a lot more people. Another example is buying the 'light' instead of the bulb. The bulb would be owned by a company, and that company would have an incentive to produce longer-lasting bulbs.

Under these principles, what we think of as 'normal' now is set to change in the years to come. What was once a landfill is now a recycling centre, and in the future it will become a centre for materials. Streams that we now see as waste, such as wood and brick, will be re-purposed. The way we deal with clothing will change radically too. Few realise it, but clothing is one of the biggest fractions in the waste we produce.

The pioneers of the circular economy, such as recycling shops and repair cafés, operate in a way that we will come to see as entirely normal in the future. But, for that to happen, much research will have to be done and many pilot projects will have to be put in place.

To make an entire city 'circular' a whole range of areas will have to be addressed. This means deciding to prioritise local produce and bringing lots of green and blue into the city to defend against climate change. It means producing as much energy locally as we can and strengthening our social networks.

It is all about closing the loop and preventing value leakage.

The city intends to take action to stimulate this process and has, for that very reason, developed an urban circular strategy: Circular Leuven.



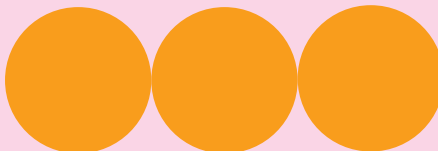
Reclaimed beams become picnic tables and benches © Sociaal Atelier

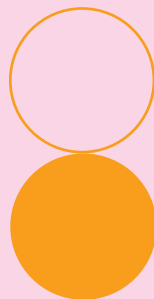
Circularity at Every Level

At the supralocal levels (Flemish and federal), many plans have been hatched to stimulate a circular economy in recent years. Keen to shift up a gear, the European Union launched the [European Green Deal](#) in early 2020. At the centre of the green deal lies circularity. Like climate policy – in which Leuven also plays a pioneering role – circularity offers a unique role for cities. Around the world today we see cities playing the circular card. [Leuven aims to take its place among the frontrunners of the circular economy](#), and one way to do that is by embracing the Green Deal in our future plans.



Sociaal Atelier and REused © Rob Stevens





Pioneering Leuven

Leuven has the potential to be the ultimate circular city of the future. Together we can make it happen.

Leuven is full of positive initiatives already, and we want to build on them. We aim to reduce the city's raw material consumption by every means available to us. Businesses finding smarter ways to use materials, innovative ways to build, sustainable clothing initiatives, offering services instead of products... The possibilities are endless if we move to a circular policy.

But reducing material consumption and being more mindful of the limits of the planet is a challenge that calls for no short measure of creativity and cooperation. This city is ideally placed, with its university, its host of innovative businesses, its strong social economy and its army of active citizens, to push hard for that circular future.





Working together on repairs in MAAKbar © MAAKbar

In Leuven a host of initiatives are already up and running.

- In recent years, a network of **repair cafés** has been initiated by active members of the public.
- Members of the public can come together to repair items in **MAAKbar**, where they have access to a tool lending service.
- In the **social economy** a circular economy has been built from the bottom up, through recycling shops and places like 'Velo' and 'Wonen en Werken'. SPIT, for example, is one of the biggest reuse-of-goods centres in Flanders.
- Students have access to **FabLab Leuven**: a library of user-friendly machinery with which almost anything can be made from wood or plastic.



Marie Thumas innovative municipal project © Henderyckx Fotografie

- Initiatives like **Sociaal Atelier** and **REused** explore new ways of reusing existing materials.

- **KU Leuven** has a vast knowledge of materials and its expertise is internationally renowned. In recent years the university's researchers have been central to the Flanders Circular knowledge network. The Circular Economy for the Government of Flanders resource centre is also a KU Leuven initiative.

- In recent years the intermunicipal **Ecowerf** project has been busy transitioning from waste processing to materials management, and it also participates in innovative projects.

- The city has a few **innovative municipal projects** in the pipeline, such as the 'makerspace', soon to arrive in the Vaart zone. The principles of circularity have been adopted in the Spatial Structure Plan. Several major spatial planning projects are on the way in the years to come, such as the development of the Vaart zone (which includes the Marie Thumas and Van Eyck sites), and they will take the principles of circularity into account.

- A number of projects have been set up with European funding. The **Sharepair** project was approved through Maakbaar Leuven. The city is one of its initiators, and the project was launched to develop the digital wing of the local repair economy. Through its **Pop-Machina** project, which involves the university and a few other cities (under Horizon 2020), the city aims to create a materials bank and circular makerspace.



Grain silos in the Vaart zone, Leuven © JanCrab

- In recent years the non-profit organisation Leuven 2030 has worked hard on Leuven's transition to a climate neutral city. One particularly important outcome of that work is the [2025-2035-2050 Roadmap](#). This science-based action plan has the support of all the major municipal players and contains a section on the circular city.

- Several businesses are looking into potential avenues of cooperation. AB Inbev, for instance, is already working on innovative circular projects, such as a partnership with Ecover. Leuven has joined Leuven MindGate to set up an innovative business network to source new project opportunities.



Creating Opportunities Through an Urban Circular Strategy



© MAAKbar



The city will build on all initiatives that have already taken root in Leuven and do whatever is necessary to give the circular dynamic a broader base and accelerate its spread.

The urban circular strategy will have to address several major challenges.

1 It is important that initiatives, wherever present in the city will be grouped together as part of a larger whole.

2 The current thinking on circularity will have to be incorporated in the city's services, to give large-scale projects the extra leverage they need.

3 Businesses in Leuven have a lot of potential. The presence of the university provides extra opportunities for innovative, economic projects.

4 There is a need for vast knowledge in support of policy. It is important for Leuven to know where the main opportunities for a future-oriented circular economy lie.

5 Active citizens and their organisations must be allowed a structural foothold in the developing circular ecosystem.

6 Leuven will have to partner with neighbouring municipalities and supralocal structures in the wider region of Leuven.

On the basis of the administrative agreement, the Circular Leuven Platform was launched in 2019. Besides the city it includes vzw Leuven 2030, KU Leuven, Leuven Mindgate, UCLL, Voka and Maakbaar Leuven. The platform was set-up as a space for systematic consultation between the partners, where they can support each other and direct the implementation of the urban circular strategy. The platform has produced a detailed document setting out the strategy for 2020-2024.

Actions

There are five priority strategic objectives. For each objective, specific actions have been agreed.

Objective 1

Circular enterprise in Leuven

Action 01 Strengthen and integrate know-how and networking on the subject of the circular economy within the Leuven business community

Action 02 Use our understanding of material streams and consumer habits to identify and act on economic opportunities for circular employment in the city

Action 03 Use the expertise present in the university and supralocal networks to spark new economic initiatives (e.g. start-ups, high-tech maker industry)

Action 04 Take advantage of opportunities to offer new circular prospects in areas of precarious employment (role of social economy, opportunities for low-skilled workers, etc.)

Action 05 Incorporate circular principles in the choice and organisation of industrial land and spaces

Objective 2

Circular construction

Action 06 Unite the players in Leuven's construction industry and offer support in the area of circular construction principles

Action 07 Build or support loops for the reclamation or reuse of construction materials in the Leuven region (create conditions for better 'urban mining' by devising a 'harvest map' and altering the procedures and tools already in place)

Action 08 Set up or design proof-of-concept schemes for circular construction (materials passport, adaptable and modular construction, repurposing of buildings, Green Deal project, etc.)

Action 09 Prepare a strategic project for a municipal materials bank



Objective 3 Repair, share and reuse

Action 10 Create a climate that supports citizen-driven repair and share initiatives

Action 11 Incentivise knowledge building and networking to scale-up product repair (Sharepair)

Action 12 Develop the systematic incorporation of social economy principles in circular strategy

Action 13 Set up innovative projects designed to raise the value of important waste streams

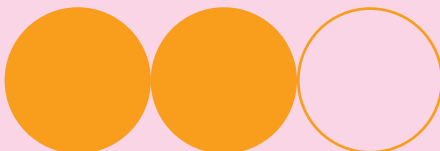
Objective 4 Sustainable and circular consumption

Action 14 Bring sustainability and circularity to the clothing industry (fair fashion, slow fashion, circular fashion, etc.)

Action 15 Encourage original sustainable consumption campaigns and support best practices in local trade

Action 16 Create a charter and specify actions

Action 17 Identify the obstacles encountered by traders and members of the public en route to a culture of sustainable consumption





Objective 5

Develop knowledge and embed circular principles in the policy in a sustainable way

Action 18 On the basis of scientific study, identify municipal material streams and consumer habits, in order to focus the urban circular strategy on the most at-risk elements, and monitor more effectively and where necessary adapt the policy's implementation

Action 19 Stimulate knowledge development to exploit the economic potential of the urban circular economy to the full

Action 20 Develop a Circular City of Leuven strategy (based on the council note) and a 'circular Leuven platform' alongside partners who help shape and implement the strategy

Action 21 Map the landscape to give a picture of the urban circular ecosystem (players currently engaged with or planning circular initiatives)

Action 22 Develop a system to monitor the strategy's implementation

Action 23 Prepare an urban circular strategy update

Action 24 Embed circular principles in the city's procurement procedures and those of other municipal actors

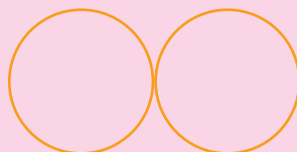
Action 25 Optimise policy instruments and culture (regulations, permits, charges, incorporation of circularity in action plans, horizontal integration of services, etc.) in support of circularity

Action 26 Collaborate with other cities in learning networks

Action 27 Attract supralocal grants for strategic objectives and participate in relevant partnership programmes

Action 28 Seek and reinforce complementarity with other policy actions and programmes

The idea is to take maximum advantage of grant programmes, especially European, in the years to come, to attract extra resources to Leuven and develop the strategy further with the help of our partners.





© Lander Loeckx



What Next?

The Leuven strategy is primarily a learning strategy. To engage with the partners as soon as possible the city council divided the work over two phases.

In **phase one (2020-2021)** we aim to establish a secure basis from which several strategic projects can be launched, maximum information can be provided and the parties concerned can be brought in touch. Initiatives such as the European Pop-Machina project should enable us to expand and inform the circular ecosystem fully.

In **phase two (2022-2024)** the strategy will be updated, the goals refined and tools put in place to monitor the results.

On the strength of our experiences in the partnerships, and parallel with the **2025-2035-2050 Roadmap** under the Leuven 2030 initiative, we should then be in a position to identify the best structure to allow for adjustments in strategy. Is a formal structure needed? Do we have at our disposal the human and material resources needed to do what it takes?

The Circular Leuven Platform will monitor and direct the strategy in the years ahead. We will check to see whether more partners are needed. We will map the actions on a timeline, provide an annual report of our progress and make adjustments wherever necessary. Finally, Stad Leuven and Leuven 2030 will communicate actively on the circular project as a whole.

Publisher

David Dessers, alderman for mobility, climate and sustainability, agriculture and consumerism for the city of Leuven

Editorial Team

Jan Mertens, H  l  ne Pauwels,
Jessie Van Couwenberghe

Design

kpot

Contact

For an unabridged copy of the urban circular strategy, or for questions or suggestions, please contact jessie.vancouwenberghe@leuven.be

"We want to turn a straight line into a circle."

MARCH 2020