

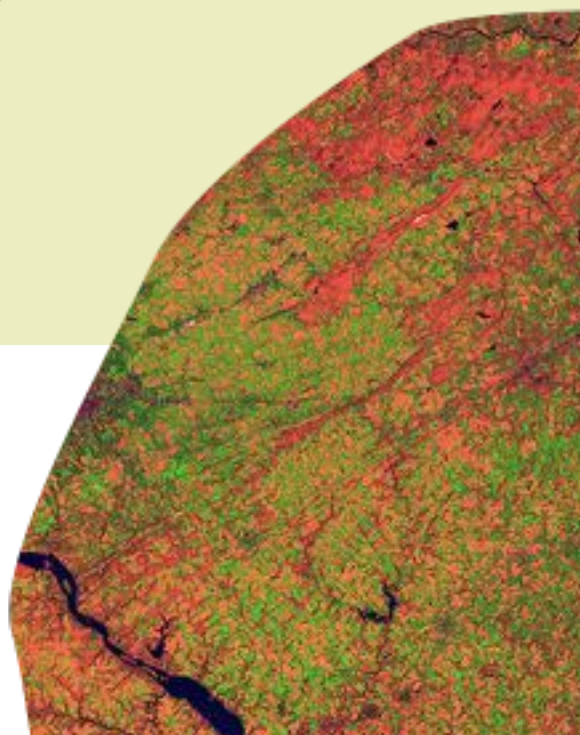
Title: De Ceuvel: a circular urban experiment

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**Occupy Climate
Change (OCC!)**
*Grassroots initiatives
entry*



FORMAS



De Ceuvel: a circular urban experiment

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Published June 2, 2025

Where is this grassroots initiative implemented?

Amsterdam Noord, Netherlands

Who are the promoters? Who are the beneficiaries?

De Ceuvel is a cooperative built and managed by a non-profit association of tenants. The space was founded by architects, engineers, creatives, and social entrepreneurs. They were granted a lease of the land by the Municipality of Amsterdam. The most direct beneficiaries are the land and the residents of the neighbourhood, but it is a space for the entire city to enjoy.

How does this initiative engage with climate? Does it tackle mitigation, adaptation, both or other dimensions of climate change?

As an urban space with a focus on circularity, it tackles mitigation - albeit on a small-scale - by experimenting with alternative models of production, consumption and waste use.

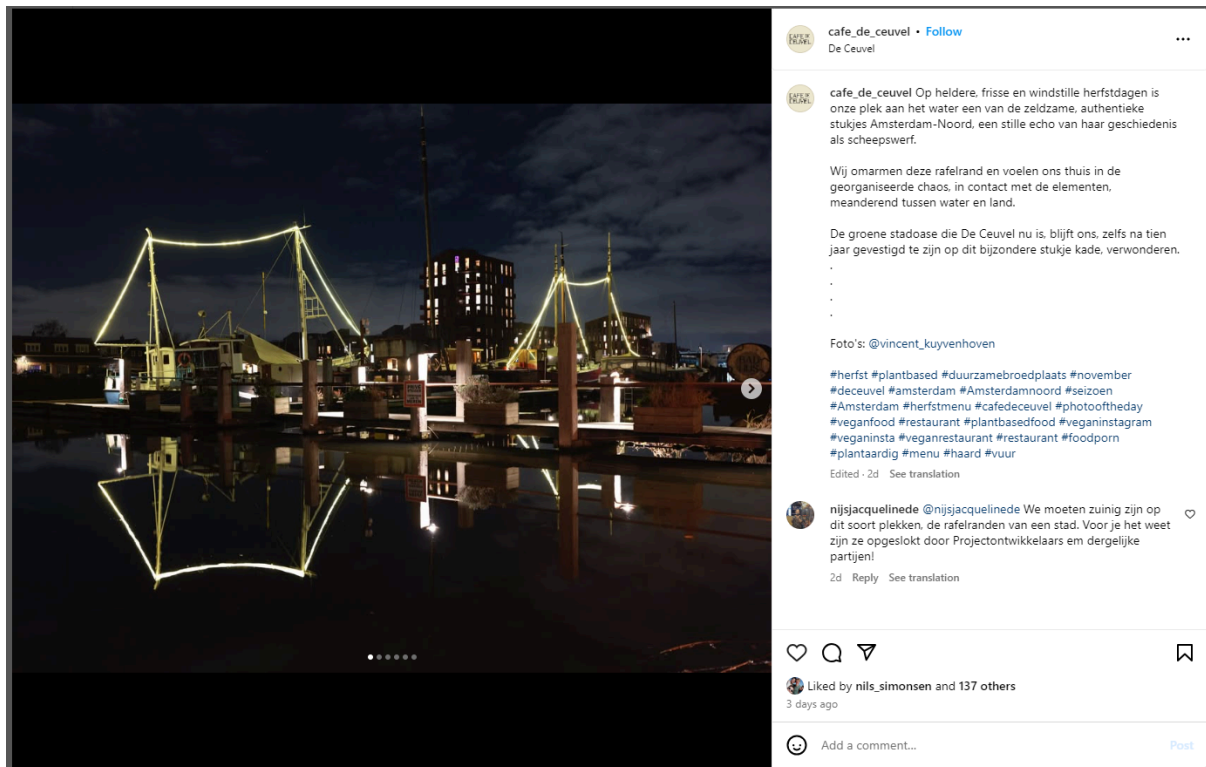
Its circularity model contains a number of technological elements, such as:

- a struvite reactor, as part of its urban biorefinery;
- the struvite reactor transforms organic waste streams into fertilizer for urban agriculture;
- a compost toilet;
- renewable energy: over 150 PV solar panels (36.000 kWh of power yearly), which covers the energy use of the offices;
- helophyte filters: water filtration systems;
- a heat exchanger;
- the boats have heat pumps and an air-to-air heat exchange ventilation system. Around 60% of the warm air that leaves the boat is captured and circulated back inside, to reduce energy needs;

- a greenhouse, for growing plants and food.

The processes they focus on are: upcycling, recycling, compost, and phytoremediation. Phytoremediation uses plants to clean the environment; at De Ceuvel, they use willows, poplars and soil-cleaning plants across the land.

The circularity model also has non-technological aspects, which will be explored in the following sections.



1. The De Ceuvel shipyard at night. Source: De Ceuvel Instagram. https://www.instagram.com/p/DC8wzZFuuVI/?img_index=1 With permission from De Ceuvel for use.

What are the main objectives? What are the main values?

De Ceuvel describes itself as “Amsterdam’s first circular office park.” It seeks to be an example of a sustainable and circular urban model, with a small-scale, local focus on reusing waste. Its closed loop works on five aspects: energy, organic waste, wastewater, food, and soil regeneration. At the same time, it is a community space, one where entrepreneurs, artists, residents can come together for food, work, and cultural events.

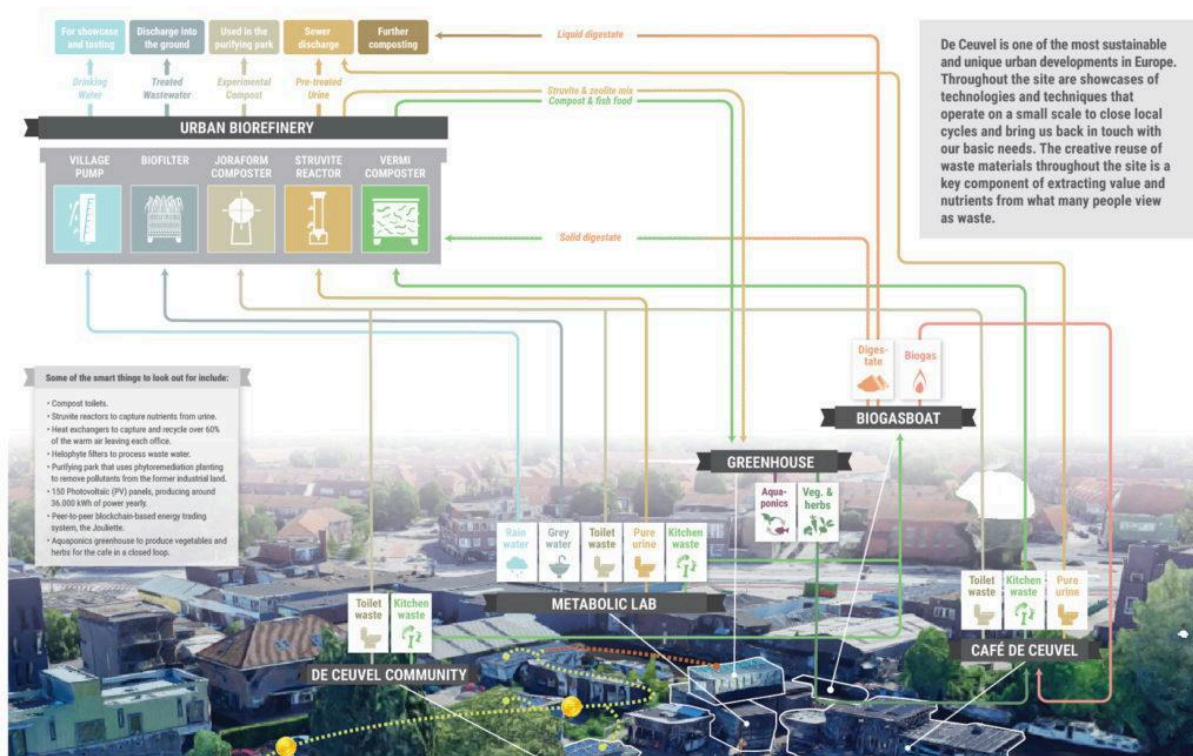
De Ceuvel consists of three parts that make a whole: De Broedplaats (houseboats for residence or studios for artists), Asile Flottant (repurposed historical ships, now a hotel) and Café de Ceuvel (fully plant-based café and restaurant). All non-human elements of the space comprise the fourth part of De Ceuvel.

Its main values are to make “sustainability creative, access, and fun for everyone.” “De Ceuvel was set up as a breeding ground for commercial and non-commercial initiatives in the fields of culture, (re)building, sustainability and water”: They want to “stimulate new ways of thinking about how we manage resources in our communities” and see themselves as “humans “work[ing] with ‘other-than-human’ life.” As a Zoöp (greek for ‘life’) association, De Ceuvel strives to contribute to ecological regeneration. They explain: “with our actions we want to support and improve the health of species communities in our environment.” This motivation comes from the history of the De Ceuvel space as a former shipyard to combat the pollution of the land and the remaining waste materials by giving the space a new sustainable life.

Thus, it outlines four goals of its circularity model is four-fold:

- design by reusing and upcycling building structures and materials;
- regenerate the polluted land (phytoremediation);
- close material cycles through new technologies; and
- understanding that the transition towards a circular society is a technical shift *and* a cultural shift.

To achieve this, De Ceuvel works with technology partners, research institutes, and government agencies.



2. The circularity model of De Ceuvel. Source: De Ceuvel website. <https://deceuvel.nl/en/about/sustainable-technology/> With permission from De Ceuvel for use.

What is the timeline?

In 1919, the land where De Ceuvel stands was purchased by two Dutch people to start a shipyard. The shipyard was running until 2000, and the infrastructure was demolished in 2002. The municipality (Projectbureau Noordwaarts, for the Noord neighbourhood and Amsterdam and Bureau Broedplaatsen) opened a competition for plans on how to use the land. The Bureau Broedplaatsen (Incubator Office in English) is a project management agency from the Amsterdam municipality whose goal is to transform vacant real estate into incubators. A group of architects won a 10-year lease in 2012 to transform the polluted site of the former shipyard into a circular urban site, and the space - De Ceuvel - officially opened up in 2014. After the initial ten years of the won lease were set to expire, in 2024, De Ceuvel was granted a 13-month extension to their lease, with an end date of January 2025 (and renewed in 2024 until 2027).

Initial visible effects of the De Ceuvel experiment have to do with the cleaning of the land, and the restoration of biodiversity (for example with planting willow, poplars and soil-cleaning plants) that was weakened during the time of the operation of the shipyard. The

upcycling and recycling of materials and waste from the land, which contributed to preparing the offices and other spaces in the space, contributed to cleaning the land. They also avoided creating more waste in the city by repurposing houseboats that were falling apart. Considering that each element of De Ceuvél is self-sufficient (including how it processes waste), the idea is that “the boats are able to leave the site without leaving any (negative) trace” when the lease will come to an end.

Who are the actors involved? What are their backgrounds?

The original De Ceuvél team was architects (independent and from Space&Matter), phytoremediation experts (Delva Landscape Architects and the University of Ghent) with support from financial partners (Duurzaam Drijvend Wonen). The three founders are all architects. [Metabolic](#) - an organisation that works on systems thinking and circular economy - participated in the original plans for De Ceuvél as well. When De Ceuvél won the lease from the city, the municipality also invested in the project by providing them with a loan to set-up the project.

Today, De Ceuvél is community-run. Every year, a voluntary Board is elected by the members. The members are the ‘Ceuvelaars’ i.e. anyone who rents a space at De Ceuvél. All the Ceuvelaars are sustainable creatives. They agree on the plans for De Ceuvél but also contribute to the circular model (rather than only benefitting from it). For example, with regards to the phytoremediation, the experts left after the set up of De Ceuvél, so the research, set up and implementation are done collectively by the Ceuvelaars. They invest in the processes with the money from the community, for example from the rent they pay for the offices and from other income sources they receive such as from tours they organise of De Ceuvél.

There are a number of other actors involved, including the Speaker for the Living. The Speaker for the Living is an advisor and ecological counselor for De Ceuvél. The current Speaker is a landscape architect, “NatureOptimist” who “designs for the non-human.” The Speaker of the Living is a role imposed by being a Zoop (introduced above). Nature is given a voice through the Speaker for the Living, who sits on the board of De Ceuvél. The Speaker is totally independent and not paid by De Ceuvél, to ensure that they can give unbiased input. Their *only* role is to advocate for those who cannot be heard, and council and challenge plans proposed by/for De Ceuvél.



3. De Ceuvel by day. Photo taken by: Anne Karam

Which limits (institutional, physical, social, etc.) does it encounter?

The main limitation of the De Ceuvel experiment is that its space is available due to a lease from the municipality. This has implications from an institutional perspective (the municipality has granted them control of the land) and physical (the lease will run out and they will have to move). When applying for the initial lease in 2014, they focused on “mobility, cheapness, and temporality” as their selling points, knowing that eventually they would have to vacate the space.

Beyond 2025, De Ceuvel has received a new extension from the municipality until 2027. It is unclear what will happen after. According to De Ceuvel, part of the municipality wants to use the land for development (i.e. put it for sale), but others would like to continue to collaborate with them on a transition plan that will use a bottom-up approach that will be run by the neighbourhood (without De Ceuvel’s involvement) and extend the phytoremediation project*

(*phytoremediation is a long process with delayed results, sometimes the soil takes decades to get cleaned). However it is not clear if they will succeed in guaranteeing this collaboration.

The other limitation for De Ceuvel has to do with its technological approach to circularity which requires a number of permits for them to implement. For example, one of the components of the circular model was a biogas boat. This boat was meant to convert organic waste into biogas that will be used in the restaurant. Advances regarding this process took time, because it was technically a fermentation equipment, and if they wanted to use it they would have to register as a fermentation company, which was not the intent of De Ceuvel. Therefore, the biogas experiment was put on pause.

Are any shortcomings or critical points visible? What other problematic issues can arise from its implementation?

According to studies assessing the work of De Ceuvel and their impacts in terms of establishing a circular model, the technical and circular results of the experiment are not yet being quantitatively monitored. These assessments will be important for other initiatives that wish to replicate their work and for advocating and selling the (potential) impacts of investing in such circular models in urban environments.

The tenancies in De Ceuvel are for creatives and small businesses working on circularity and sustainability. The tenants (Ceuvelaars) form the community board and contribute to the decisions and responsibilities of the space. However, the space is run for the benefit of the neighbourhood and city at large - not only in the model it is setting in urban circularity, but in offering a community space, promoting local businesses, and educational opportunities.

How would it be potentially replicable in other settings?

De Ceuvel is already seen as a model of urban experiments in the Netherlands and across Europe. It has generated significant investment and international interest throughout the years. In terms of its replicability, it seems that prerequisites are: funding and investment, a lease and control over the land, and a municipality that is favourable and open to these kinds of experiments, and that offers these leasing opportunities in the first place.

For De Ceuvel, they recognise that their initiative would not have been possible without the cooperation from the municipality, through the initial land lease, the loan for the project and the numerous extensions. However, at the end of the day, De Ceuvel is an environmental experiment that can be possible anywhere, according to them. It can and should be repeated

because the outcome will be specific to the context - both in terms of the environment it is dealing with and the people who will be involved.

Is this initiative conducive to broader changes ? If yes, which?

De Ceuvel is trying to participate in the cultural shift by advertising its model and hosting sustainability workshops and lectures. They organise tours for anyone who is interested to share their circular model and approach to sustainability, specifically phytoremediation. There is a Canadian university that has visited them three times to learn about phytoremediation and to transfer the learnings from the De Ceuvel experiment to the land where they are based. They feel that they have inspired many locally as well to work on phytoremediation, especially people or groups involved in community gardens on polluted soils.

De Ceuvel recognises that their work on advocacy is a missed opportunity. The Ceuvelaars are all small companies who, when they are not working, are contributing to their De Ceuvel model, space and community. There is not one leader that is able to take this responsibility and capitalize on their visibility for bigger advocacy goals, and they do not see themselves as being famous: “we are just here doing stuff.”

At the small-scale, De Ceuvel used to organise a “very practical” festival for the local community that they called Let’s Make the World Great Again (not Trump-related!) whereby they offered services to people to help them adopt more sustainable practices, for example switching their banks to one with a better environmental track record.

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