

Covenant of Mayors for Climate & Energy EUROPE

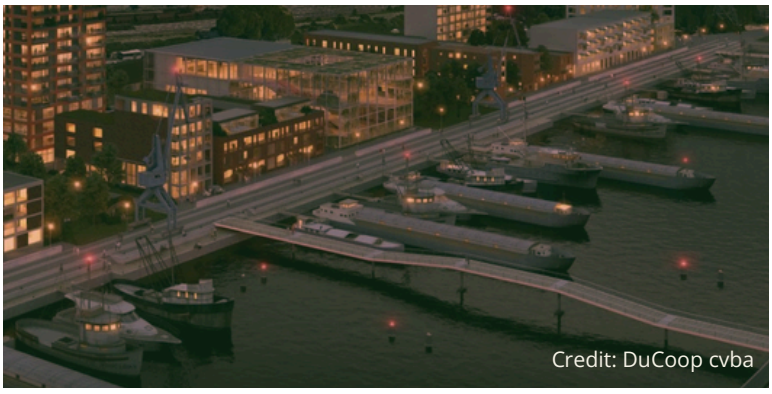
ENERGYCITIES

An initiative of the European Commission

Ghent (Belgium)

Urban renewal with a locally built cooperative system

In one district of the city of Ghent, neighbours share more than a street. Their heat, EV charging and energy storage are pooled and run by DuCoop, a cooperative born from a public-private partnership. It was made possible by forward-looking planning in the city's urban renewal programme.


Credit: DuCoop cvba

The challenge

Ghent's former industrial port has become De Nieuwe Dokken, a brand-new district with some 340 homes at present and around 500 more planned, as well as a school, parks and offices.

The municipality saw this urban renewal project as an opportunity to onboard private partners in the climate transition, but it faced a practical question: can a neighborhood manage its own shared energy infrastructure?

Ghent | Belgium
274.000 inhabitants

Readiness level:
Mature

Energy sector:
☑ Electricity ☑ Heat
☑ Mobility
Type of plant(s):
☑ Solar PV ☑ Waste heat

Energy activity:
☑ Production ☑ Distribution
☑ Supply ☑ Storage

Who was in lead: Municipality of Ghent for the launch, the private companies Schipperskaai Development and Clean Energy Innovative Projects (CEIP) for the planning and implementation

Key partners:
Companies, energy community, utility, others

Published October 2026

The local solution

DuCoop is a multi-service cooperative that runs the heating and water systems in Ghent's De Nieuwe Dokken neighbourhood, sustainably and collectively. It grew out of the public–private development of De Nieuwe Dokken. The city's development agency, Sogent, chose Schipperskaai Development during a bidding process. In 2014, Schipperskaai Development teamed up with Clean Energy Innovative (CEIP) and two private individuals to launch DuCoop. The water company Farys joined later, both as a shareholder and as the partner for wastewater services.

Through Sogent, the city shaped the wider neighbourhood and worked with DuCoop on the district network. Residents became cooperative members when they moved into a home or office in the district, and they could choose to invest more. Together, these partners made shared infrastructure possible across a whole district.



Credit: DuCoop cvba



Role of the municipality and partners

The municipality, through its development agency, initiated and shaped the development process of De Nieuwe Dokken. The municipal Climate Transition Taskforce which was in place in 2013 introduced the idea of recovering heat, water and nutrients from households' waste and wastewater.

The private development partners Schipperskaai Development and Clean Energy Innovative Projects founded DuCoop to deliver the neighbourhood's sustainable services. The water utility Farys joined later as a shareholder. The cooperative model itself was proposed by the developer's consortium in its winning bid.

To make everything work, the selected developer brough together an extensive network of partners to design the neighborhood's systems (from engineering to ICT, from the financial modelling to water purification design). The City of Ghent supported the project through Sogent and by granting DuCoop a concession for the network in the public domain.

Implementation insights: how it was grown in practice

In 2013, the Municipality of Ghent set up a Climate Transition Taskforce with the objective of turning climate into a cross-cutting topic in municipal action. The recovery of heat, water and nutrients from wastewater appeared to be one method to serve that purpose. A working group of experts explored the options and looked for sewer utilities willing to run a pilot. But wastewater heat recovery was still experimental: the utilities weren't ready to become heat suppliers, and the city couldn't test the approach on its existing district heating network. So in 2014, the city turned to the Old Docks, where the entire heating network had yet to be designed.

The municipal development agency was already running a tender there to build 400 homes. The city commissioned a feasibility study and added heat recovery to the tender documents. Out of the three pre-qualified candidates, two decided to integrate heat recovery in their proposal. In September 2014, the winning bidder, the property developer Schipperskaai Development, created the cooperative DuCoop in partnership with other private stakeholders. The founding rules made room for residents, other cooperatives and public partners to join later, thanks to specific share classes.

What changed in practice?

Agility in internal governance: Ghent's municipal Climate Transition Taskforce successfully put climate at the heart of the urban renewal project, bringing several stakeholders together around an innovative solution. This approach revealed time-intensive and is now being adjusted: the city encourages and helps powerful local stakeholders to anchor climate matters in their own corporate agenda.

Collective solutions: the cooperative has put shared heat, EV charging and energy storage into service across homes and the public Melopee building, rather than leaving each building to arrange these systems separately.

Residents get access to district heating and shared EV charging built into their homes, with less water used and membership in the cooperative through their ownership of real estate.

DuCoop owns and is responsible for the collective part of the heat network up to and including the district heating substation in a building or home. Today, DuCoop goes beyond distributing residual heat from the neighboring industries (Christeyns and Govi). It also produces its own electricity through solar panels in the neighborhood. The produced power serves for wastewater treatment and allows residents to recharge their EVs. A shared battery stores surplus power, flattens peaks and offers flexibility to the grid.

Until July 2026, DuCoop also treated the wastewater on site and turned kitchen waste into biogas and fertiliser. However, this pioneering installation has since stopped: the wastewater is now collected and discharged to the public sewer, while the kitchen waste is collected by the local waste company IVAGO, and the lessons learned fed into the next phases of the district.

As DuCoop was the sole heat provider of the neighborhood, it had a guaranteed number of consumers, making it easier to make a business case for the district heating network.

Additionally, the network can rely on a local heat source, the residual heat from the neighboring industry. The municipality also sets a clear social safeguard: while usually price setting for heating is based on a reference system on natural gas, to change the price setting principles DuCoop requires the agreement of the city, protecting residents from price shocks.

What was harder than expected


Credit: DuCoop cvba

- **Early adopter**: recovery from wastewater and waste was still experimental, and it was difficult to get an economically viable business case. That is why it took more time than usual to conduct a feasibility study and include it in the tender. In hindsight, the partners were too optimistic about the robustness of the techniques and the pace with which extra clients would connect. Operating these innovative installations also called for highly qualified staff, and the resulting management costs weighed on the business model of a cooperative at district scale.

- **Legal limbo:** Flemish legislation does not clearly define who benefits from tax revenues related to wastewater treatment. In a conventional set up, revenues go to the central sewage utility. However, in the case of DuCoop, the wastewater service was decentralized and operated in an area where no traditional sewer was present. This unusual setting made it necessary for Du Coop to be legally recognized as a tax revenue beneficiary and to recover money for its work. In addition, the vacuum toilets in the district use much less water. Since the wastewater levy is based on water consumption, the levy income was lower than what a conventional system receives.

- **Small scale:** supplying heat all the way to the individual household is labour-intensive: connections, metering, billing, customer contact and maintenance of the substations. At a limited scale, this overhead weighs heavily on the business model.



Conditions to grow something similar in your place!

- Pilots that challenge the system can work around legal limbo and still prove their viability: Grey areas in regulation do not mean it's impossible to act.
- Benchmarking indicators such as Ghent's Sustainability Barometer for city projects helped measuring the real sustainability impact of the Oude Dokken project, and to increase credibility and trust within the community.
- In the start-up years, the financial strength and decisiveness of DuCoop's founding shareholders were essential. They could invest, carry risks and act quickly. Such strong governance would have been hard to achieve with citizen participation alone, given its more limited means.
- Agree from the start who owns and maintains what: the cooperative, the developer or the building owners. This avoids discussions on maintenance and liability later on.
- Managing heat, EV charging, a battery and solar panels together creates flexibility, for instance by turning surplus power into heat. This strengthens the business model and lowers emissions.
- Not every innovation last, but the infrastructure can keep its value. Separate wastewater collection keeps future options open.

> Timeline of the Oude Dokken project (in Flemish)
> DuCoop cooperative (in Flemish)

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