

# LOCAL LEVEL PERSPECTIVES

## Ghent region

Webinar ICLEI  
February 18th  
2018

[jorn.verbeeck@stad.gent](mailto:jorn.verbeeck@stad.gent)



# Ghent

## Co-creating the circular city: A commons-based approach – City of Ghent

- ▶ A (too short) snapshot...
- ▶ **Circular economy / commons...** What? How?
- ▶ **Food:** Gent en Garde, the Ghent Food Council
- ▶ **Energy:** from individual approach to a common neighbourhood project.
- ▶ **Mobility:** from car sharing to mobility-as-a-service



# Ghent

## facts & figures



### 4 towers

Four towers dominate the Ghent skyline. Three of them date back to the Middle Ages. The Saint Nicholas' church, the Belfry and the Cathedral form an imposing trio, while the modernist Book Tower tower looks over the university district.



**252,333**  
inhabitants



**70,000**  
students



**13**  
museums



The third most authentic  
destination in the world,  
National Geographic  
Traveler Magazine

### a festive city

including the Ghent Festivities,  
the largest street festival in Europe

### a port city

the port of Ghent employs 65,353 people  
and generates 7.4 billion euro in revenue

### a popular city

with a population of more than 250,000

### a monumental city

That counts the highest number of heritage  
buildings in Belgium

### a university city

Ghent is home to approximately 70,000 students  
and 14 skills centres

### a musical city

with the right to call itself 'UNESCO Creative City of Music'

### startup city

winner of the EU Enterprise Promotion Award 2013  
and Financial Times Best Startup Support City 2017

### climate city

committed to become climate neutral by 2050, in line with  
the Covenant of Mayors





# ghent city with a mission

---

Ghent is an open, inclusive, smart and child-friendly city. It connects all forces to develop the city into a lasting and liveable whole and in doing so shapes the future.

Ghent wants to be a creative forerunner in the transition towards a climate-neutral city. We are building an eco-friendly and diversified economy that brings welfare for all.

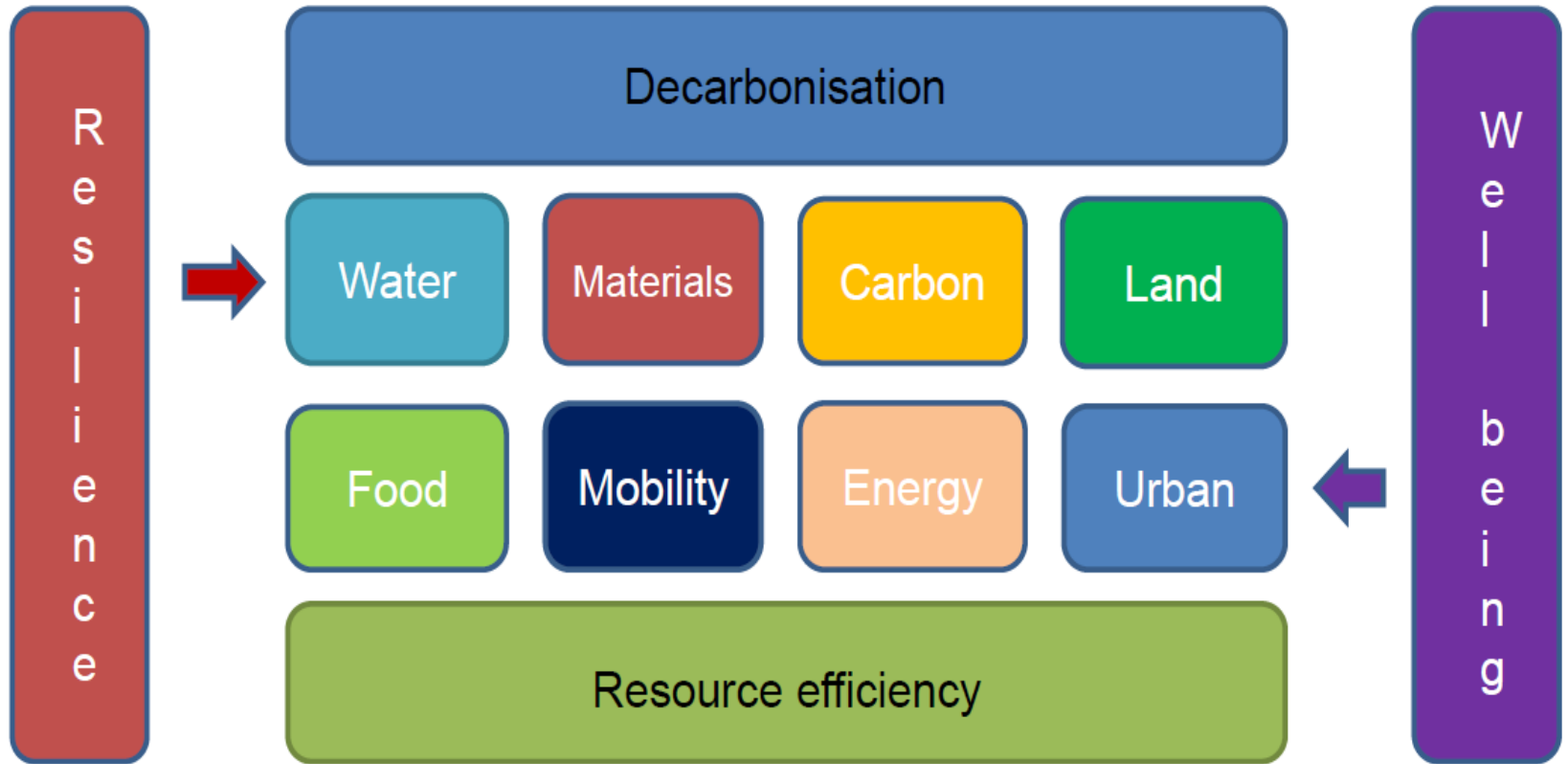
By doing so, we develop a community of responsible citizens who can develop themselves freely and who can count on the necessary support.

## **BRIDGING TOP-DOWN AND BOTTOM-UP?**

**SMART CITIES  
NEED SMART CITIZENS  
TO BE TRULY INCLUSIVE,  
INNOVATIVE AND SUSTAINABLE**

# Circular economy & the commons...

## Low carbon economy



## Circular economy

# Ghent

## focus on economic spearheads

- ▶ **Spearheads:** materials, health, ICT, biotech, creative economy, cleantech.
- ▶ **Objective:** Retain, renew and attract industrial and economic activity with a cluster approach
- ▶ **Method:** Formulate development plans in co-creation
- ▶ **Features of economic spearhead policy :**
  - focus on innovation and implementation
  - the smart quadruple helix model
  - positioning Ghent in an international context
  - focus on Ghent's current and future strengths
  - Challenges in the field of energy, waste, materials and water
  - A decrease in urban CO2 emissions
  - Economic added value with environmental benefits



# Ghent Commons City

## Findings of the 2017 study by Michel Bauwens

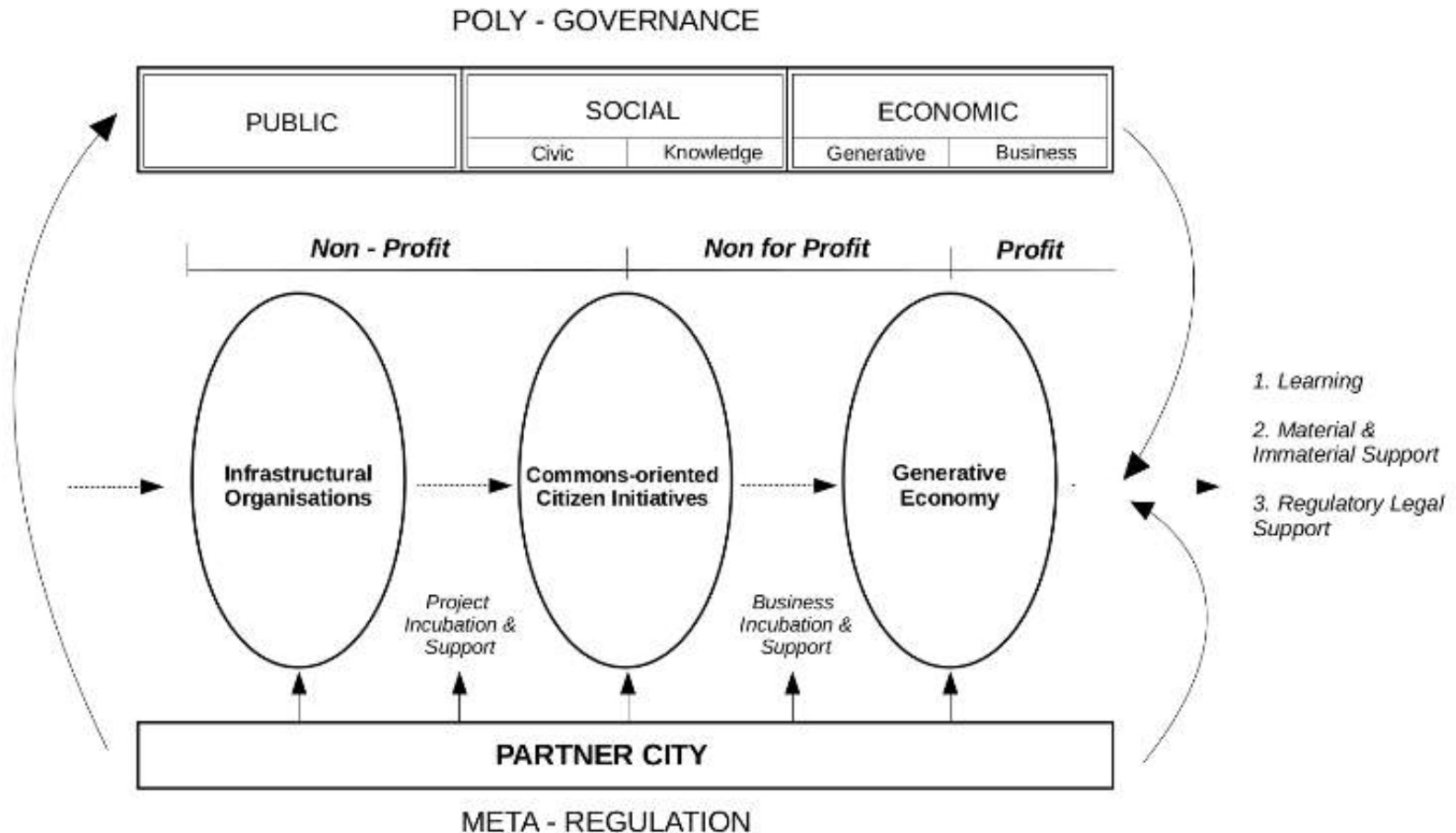
The consultation, which took place during the spring of 2017, took the form of:

- ▶ A **mapping** of 500 or so commons-oriented projects per sector of activity (food, shelter, transportation, etc), through a wiki, which is available at <http://wiki.commonsgent.be>
- ▶ 80+ one to one **interviews** and conversations with leading commoners and project leaders
- ▶ A written **questionnaire** that was responded to by over 70 participants
- ▶ A series of 9 **workshops** in which participants were invited per theme, 'Food as a Commons', 'Energy as a Commons', 'Transportation as a Commons', etc ..
- ▶ A **Commons Finance Canvas** workshop, based on the methodology developed by Stephen Hinton, which looked into the economic opportunities, difficulties and models used by the commons projects



# Ghent Commons City

Findings of the 2017 study by Michel Bauwens



Source / more info: [commonstransition.org](http://commonstransition.org)



# Ghent Commons City

Findings of the 2017 study by Michel Bauwens

## ▶ THE ANALYSIS OF THE SITUATION IN GHENT

- ▶ The city of Ghent is a dynamic city of nearly 300k inhabitants including a huge number of young people and students. It's a city in which the commons already have a distinct presence, with support from an active and engaged city administration.
- ▶ The city is actively engaged in carbon reduction, traffic reduction, and has neighborhood and social facilitators, connectors in schools, street workers and other types of staff that is actively engaged in enabling roles at the local level. This includes different kinds of support for commons-initiatives.
- ▶ The city has an important policy to support the temporary use by community groups of vacant land and buildings.
- ▶ **The city counts around 500 commons-oriented initiatives in all sectors of human provisioning, such as food, shelter, mobility, etc. Many of these are active around the necessity of socio-ecological transitions in their respective domains and neighborhoods.**

Source / more info: [commonstransition.org](https://commonstransition.org)

# Ghent Commons City

Findings of the 2017 study by Michel Bauwens

---

## ▶ MAIN RECOMMENDATION

- ▶ Establishing an overview and connections in a fragmented commons landscape
- ▶ We propose public-social or public-partnership based processes and protocols to streamline cooperation between the city and the commoners in every field of human provisioning.

# PROJECTS

## Ghent area



# Ghent

## Food strategy

---

1. A more visible, shorter food supply chain
2. More sustainable food production and consumption
3. Stronger social value for food initiatives
4. Reduce food waste
5. Reuse food waste and maximize its potential



# Ghent

## A more visible, shorter food supply chain

- Improve access to local markets for producers
  - Scale up short food supply chains to B2B
- Bring consumers and producers closer together
- Space for food production
  - City-owned agriculture land for free in return for local production & social employment





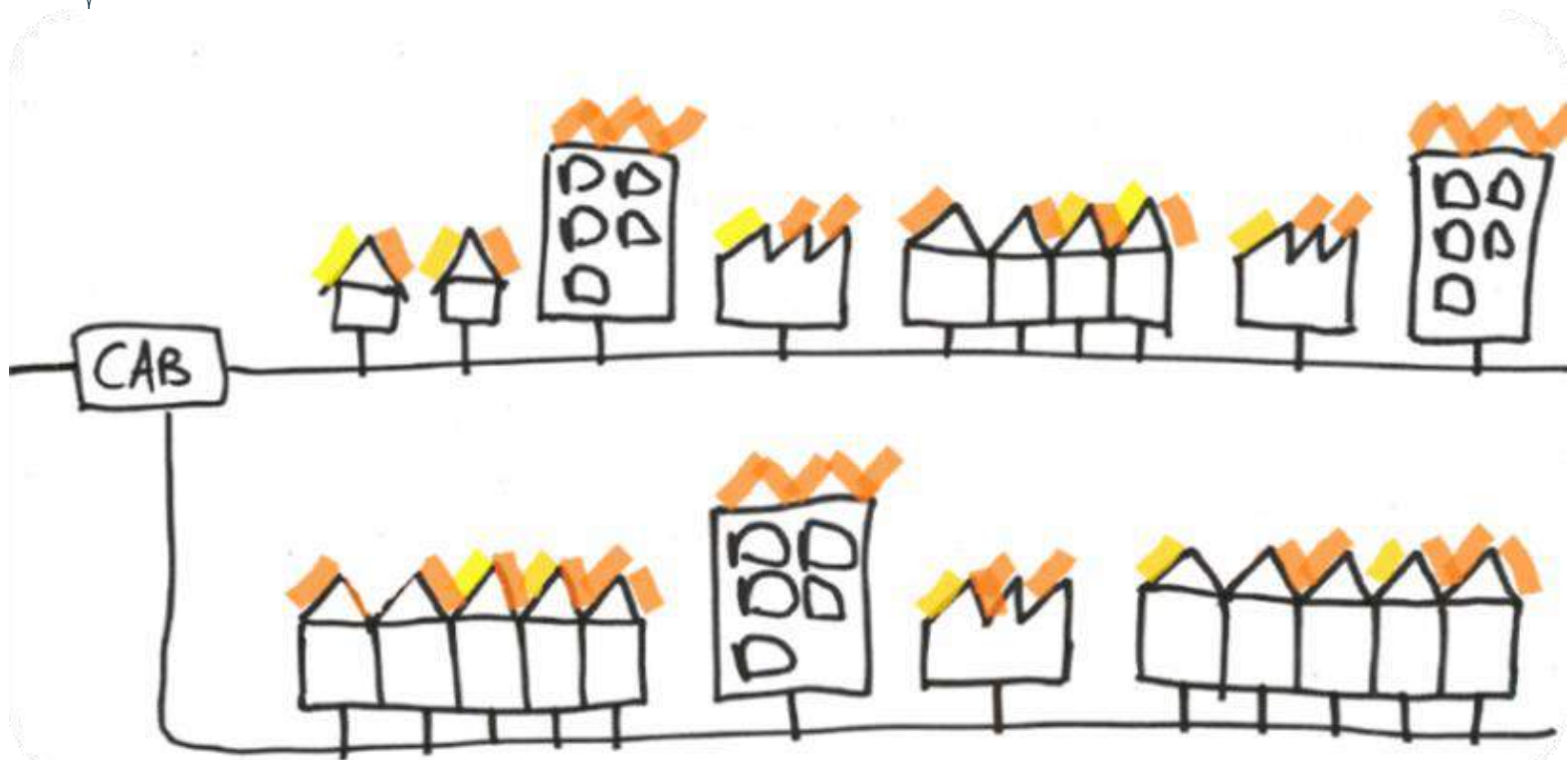
# Ghent

## Food strategy & The Commons...

- ▶ The city has created an initiative, Gent en Garde, which accepts the five aims of civil society organisations active in the food transition (local organic food, fairly produced), which works as follows. The city has initiated a Food Council, which meets regularly and could contribute to food policy proposals. The Food Council is representative of the current forces at play, and has both the strength and weaknesses of representative organisations. The Food Council contain a contributive **‘food working group’ which mobilizes those effectively working at the grassroots level on the food transition by following a contributive logic**, where every contributor has a voice. In our opinion, this combination of representative and contributory logic is what can create a super-competent Democracy+ institution that goes beyond the limitations of representation and integrates the contributive logic of the commoners.
- ▶ **But how can the commoners exert significant political weight?** This requires voice and self-organisation. We therefore propose the creation of an Assembly of the Commoners, for all citizens active in the co-construction of commons, and a Chamber of the Commons, for all those who are creating livelihoods around these commons, in order to create more social power for the commons.
- ▶ This essential process of participation **can be replicated across the transition domains**, obtaining city and institutional support for a process leading to Energy as a Commons, Mobility as a Commons, Housing, Food, etc.

# Ghent

## Energy: Neighbourhood Power





# Ghent

## Energy: Neighbourhood Power

- ▶ In the Neighbourhood Power project the city of Ghent wants to experiment together with the citizens of one neighbourhood with **collective solar panels on roofs that are suited for solar use, but that are unused at the moment**. The produced energy will be consumed as much as possible at the moment of production within the neighbourhood.
- ▶ An energy coöperative makes sure people can invest in this collective energy production. Besides that they facilitate that the produced energy is consumed locally. The people from the neighbourhood can participate in the coöperative by lowering their energy needs and by changing their own energy consuming behaviour ... EVERYONE MUST BE ABLE TO BENEFIT FROM THE SUN...
- ▶ **RELATIONSHIP CITY – COOPERATIVES:**
- ▶ The city felt a need (formulated in a transition arena) and searched for people and partners who wanted to do something to meet this need.
- ▶ The city took the initiative for meetings with interested potential partners. Two cooperatives (EnerGent and Ecopower) joined these meetings.
- ▶ The city provided guidance in constructing the collaboration.  
The coöperative EnerGent became the coordinating partner. Ecopower participates in the project by testing the WiseGRID-tools.

# Ghent

## Mobility: Traffic Management as a service

---



# Ghent

## Mobility: Traffic Management as a service

---

### ‣ Challenge:


- Traffic Management Centres are mostly working independently and very hardware-oriented: sensors, CCTV camera's and large rooms filled with screens and people watching them 24/7.

### ‣ Proposed solution:

- Virtualize traffic management. Create a central cloud-platform that integrates with local and global information sources. Like Spotify. Authorities can access the platform and manage traffic instantly, instead of investing years in hardware.
- - Get data where they are. Don't invest in hardware, but collaborate with parties that own real-time data about mobility. Collect that data.
- - Go broader than just cars. Collect information about public transport and import social media messages, weather data, ..
- - Configure the platform according to city needs & local mobility policies

# Ghent

## Mobility: Traffic Management as a service

- 
- - Let the platform monitor the data instead of people watching screens. The platform will automatically take actions if things happen that deviate from the expectations.
  - - The platform matches data from different sources and links causes & effect
  - - Citizens can define their information needs & preferences
  - - Citizens get informed automatically and on individually, based on their preferences or actual location. Preferably through social media or messaging applications.
- 
- **Bottom-up:**
  - Apart from modal shift and rising amount of cyclists ... also linked to the enlargement of the inner city pedestrian area:
  - - Rising amount of car-sharing initiatives, some (semi-)commercial – some instigated by citizens



**MAKE EVENTS SUSTAINABLE USING NEW TECHNOLOGY  
AND AN INNOVATIVE BUSINESS MODEL**



# BOOMBAR

BoomBar is a **sustainable, mobile and modular bar** for use at festivals and events.

Research for the **most sustainable solutions** was conducted at all levels, such as using residual heat from the beer dispense system cooler for dishwashing water for the reusable tumblers.

Together with its partners, Boombar developed its own business and marketing model and is living proof that **ecology and economy can go hand in hand** also in the event sector.



BoomBar is **mobile**: it is constructed on a 6-metre-long and 2.4-metre-wide trailer.



BoomBar is **modular**: the twelve 1-metre-wide modules on the workfloor are easy to move.



BoomBar serves **tap water**: possibly the BoomBar's most significant innovation.



BoomBar dispenses **everything on tap**: soft drinks are mixed with tap water on-the-spot in a **post-mix system**.



BoomBar is **low on packaging**: the maximum number of drinks are dispensed from tap into reusable tumblers.



BoomBar is **energy-efficient**: as it is low on packaging, there is hardly any need for refrigerators and the BoomBar can be connected to a standard plug socket.



BoomBar **recovers heat**: the residual heat from the dispense system cooler is used to heat the dishwashing water for the reusable tumblers.

BoomBar is **festival-proof**: it is light, yet sturdy and robust.

## Partners



A photograph of a large industrial facility, likely a bioprocess plant, featuring multiple levels of stainless steel tanks, pipes, and walkways. The tanks are arranged in rows, and the structure is supported by a metal framework. The background shows a brick building. The image is overlaid with a semi-transparent graphic consisting of several overlapping circles of varying shades of gray and blue. A white rectangular box with a yellow border is positioned in the center-right of the image, containing the text "FROM INNOVATION TO BIO-BASED PRODUCTION".

**FROM INNOVATION TO BIO-BASED PRODUCTION**



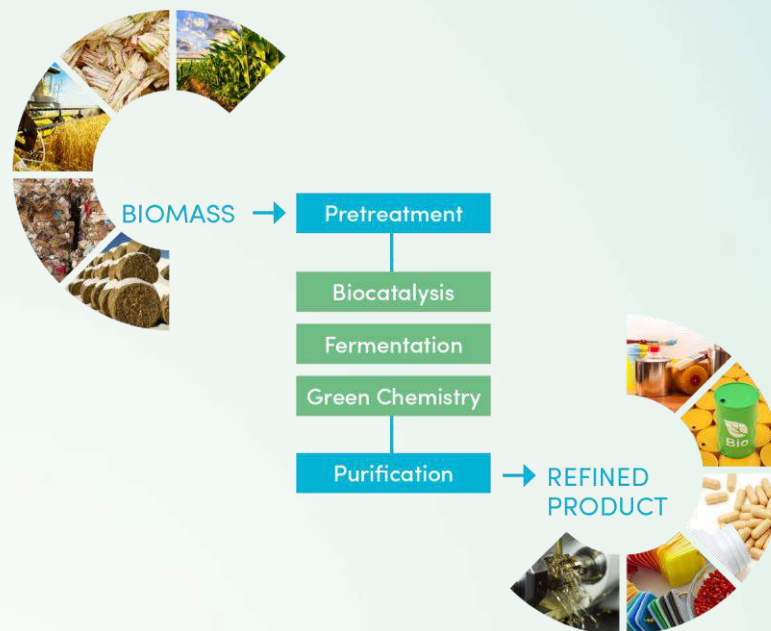
# BIO BASE EUROPE PILOT PLANT



An independent, leading **pilot plant** for the development, trial production and scale-up of **biobased processes and products**.

Bio Base Europe Pilot Plant helps companies and research institutes to translate **promising innovations** at laboratory scale into achievable **industrial processes**.

The pilot plant's wide range of equipment and experienced team of highly-educated engineers, operators and technicians, has enabled it to expand within a short period to become a global benchmark



Between 2013 and 2015, Bio Base Europe Pilot Plant conducted over **130 projects** for **70 different companies** and was partner in over **25 consortium-based projects** involving some **85 companies** and research institutes.

Partner







**CIVIL COOPERATION FULL OF ENERGY**

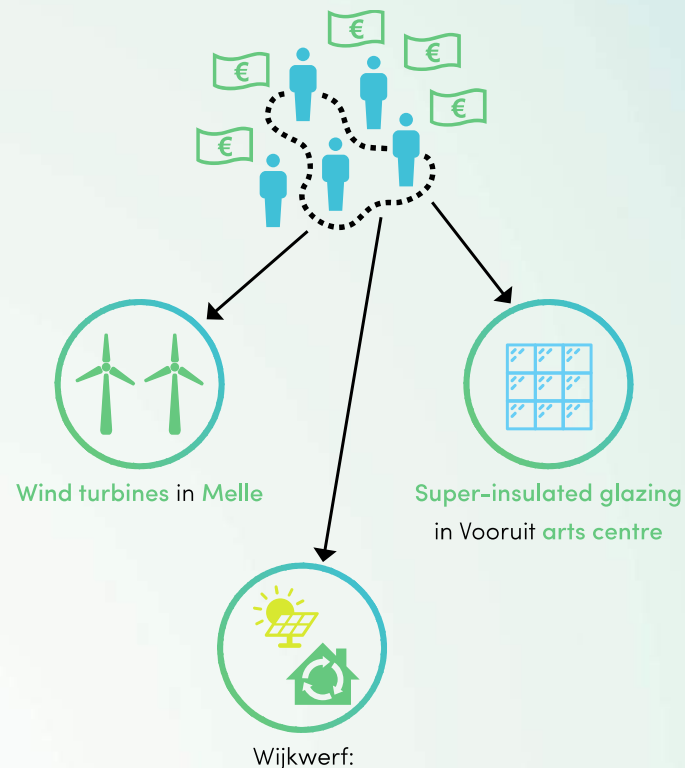
# ENERGENT

EnerGent is a **citizen cooperative** that invests in local energy-saving and renewable energy projects.

All **Ghent citizens** can invest in the energy cooperative by **purchasing shares**.

Although cooperative shareholders are asked to purchase no more than five shares of 100 euros, EnerGent has still sold **150,000 euros** in shares.

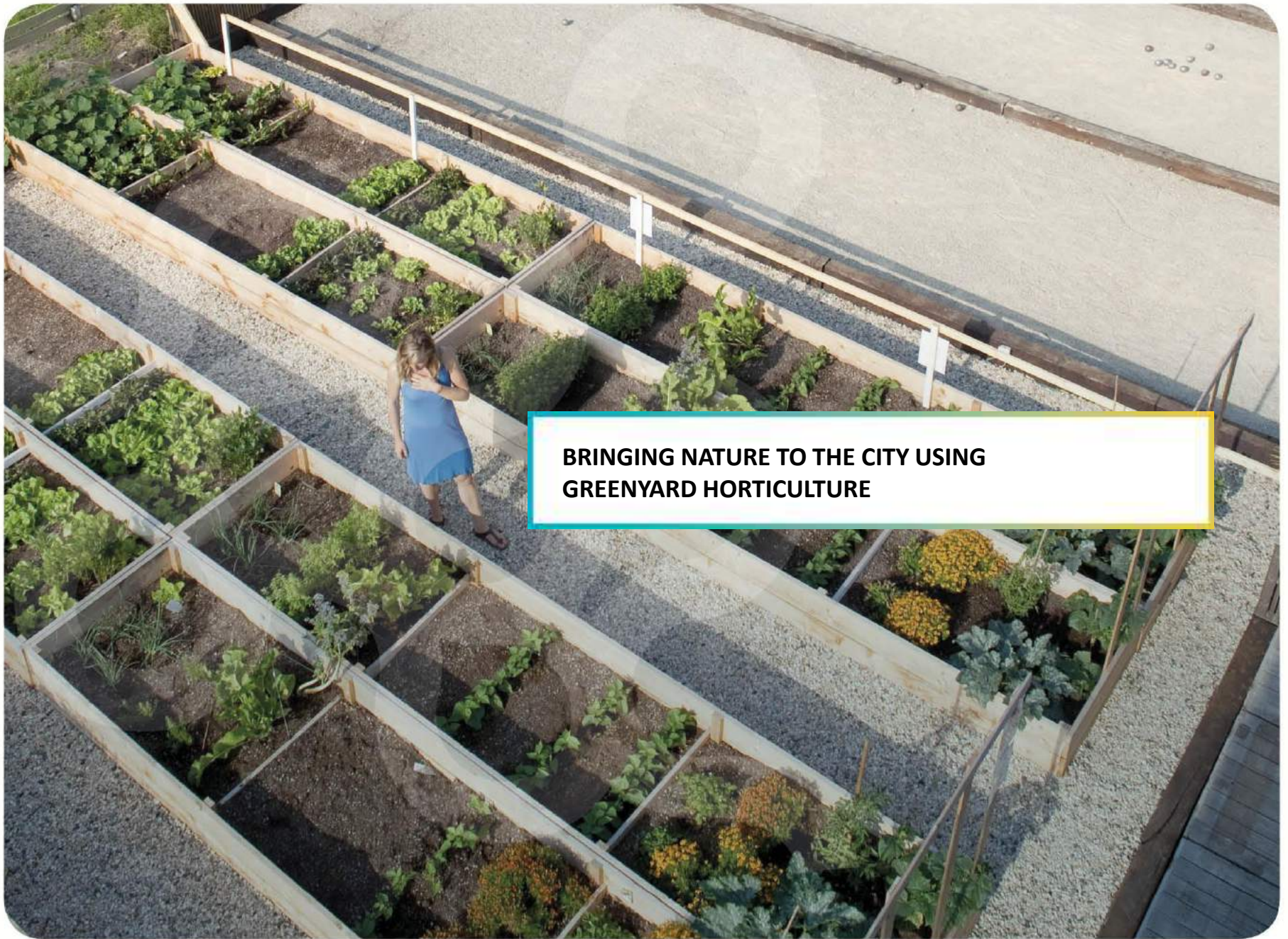
EnerGent is currently planning to build **two wind turbines** in Melle, in cooperation with Eneco. EnerGent also financed **super-insulated glazing** for arts centre Vooruit, has pushed for the development of solar projects and is the Wijkwerf project lead. Wijkwerf supports Ghent citizens in **energyefficient building and renovation**: Wijkwerf moves from district to district, without excluding people who live outside the adjacent focus districts. This project is supported financially by the City of Ghent and Koning Boudewijnstichting. Wijkwerf has also included **solar panels** in its range since 2017, which will receive an extra boost following the launch of the **Ghent Solar City** campaign.



## Partners







**BRINGING NATURE TO THE CITY USING  
GREENYARD HORTICULTURE**

# GREENYARD HORTICULTURE



Bringing the **countryside to the city** is not always easy. Trees can create a sense of tranquillity, but how do you ensure that the roots receive the space and oxygen they need in a densely-concreted street?

Greenyard Horticulture works together with many local stakeholders to develop good substrates for greenery in the city. Urban farmers from ROOF FOOD, for example, grow vegetables on these substrates on their roof allotments which, in turn, helps Greenyard create even better substrate. Opportunities for green urban initiatives are also created with green roof substrates, substrates for ground cover, tree granulate and educational allotment containers for schools.

Greenyard produces 1.5 million m<sup>3</sup> of substrate annually, making it the **third largest substrate producer** in Europe and one of Europe's top substrate producers.

To reduce the environmental impact of these substrates, all potentially suitable biomass streams are studied to ascertain their usability as raw material. For instance **nature management residues from heather and forest management** in Flanders will be used as raw material for Greenyard substrates in the future.



- Ghent '**ROOF FOOD**' project: construction of the largest **Greenyard horticulture** in Flanders (500m<sup>2</sup>).
- 109 Ghent primary schools are learning to cultivate using the **educational** package '**De Proeftuin**'.
- Greenyard **horticulture** is partner in the Ghent urban agricultural project '**le petit botanique**' (EU EFS fund).

Partners

**GREENYARD** 





An architectural rendering of a modern urban development at dusk. The scene features several multi-story buildings with illuminated windows and balconies, some with greenery. A prominent tall, cylindrical building stands out. In the foreground, a canal or river flows, with a long, low building and a small boat docked along the bank. The sky is dark with some clouds, and the overall atmosphere is serene and futuristic. A semi-transparent yellow box with a blue border is overlaid on the right side of the image, containing the text.

**ZERO WASTE WATER WITH ENERGY  
AND NUTRIENT EXTRACTION**

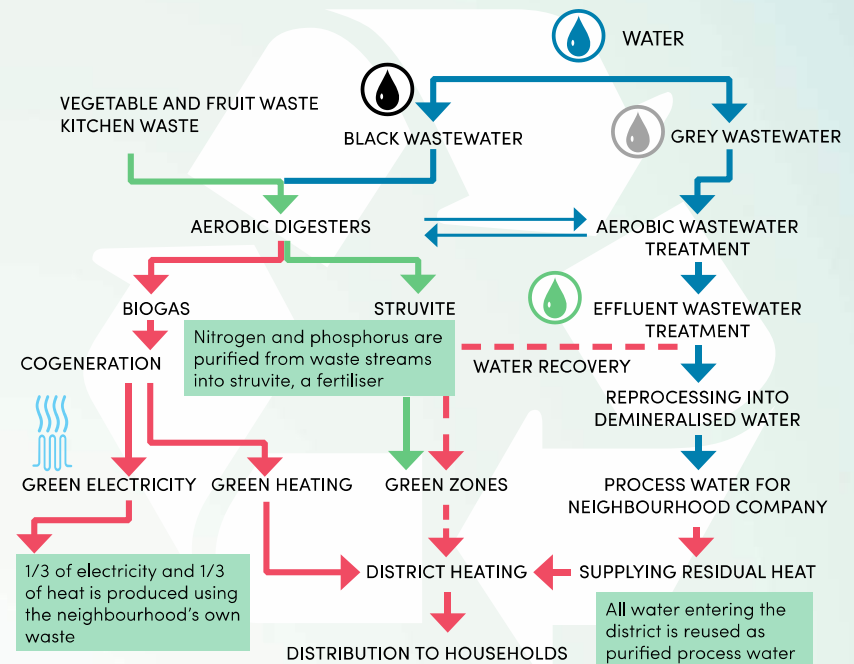
# ZAWENT

Reconverting **brownfield** sites into modern residential areas that meet all the requirements of the 21st Century is not the easiest option.

Project Developer Re-Vive is committed to such new **urban development** with a strong focus on innovation and sustainability.

Wastewater and vegetable and fruit waste from residents on the Nieuwe Dokken site will be used to produce **biogas**, **fertilisers**, **heat** and **process water**. The polluter no longer only pays, but is also paid.

Residents can invest via a **sustainability cooperative** and earn money from the new urban development.



## Partners

**RE-VIVE**  
REVITALISING BROWNFIELDS

**CEIP**  
Clean Energy  
Innovative Projects

**e-ster**

**NuReSys**

**sogent** GEEFT GENT VORM

**architecture**  
is an art  
we make it  
happen  
vanhooft