

PAKT ANTWERP

Design & Development:
PAKT Antwerpen

Year:
2006

Location:
Antwerp, Belgium

More info:
www.pakt-antwerpen.be

Scales:
Neighbourhood

Resources:
Nutrients, Technical Materials

Design Approaches:
Regenerative design

R-Strategies:
Recycle, Refurbish,
Remanufacture

Aspects:
Design, Resource Flows



PAKT is a circular neighbourhood project developed in the Antwerp Green Quarter (BE) in 2017. Soon after its finalisation, this project became a hotspot for circular entrepreneurs, start-ups and urban horticulturalists. The project is straightforward but very compelling. It involves the redevelopment of large old warehouses and related residential buildings. The neighbourhood design transformed the former warehouses into a contemporary, dynamic, attractive place.

PAKT was initiated by two brothers, Ismail and Yusuf Yaman and Stefan Boston, in 2006. In love with the derelict warehouses hidden in the Antwerp city centre (nowadays "Groen Kwartier"), they decided to transform the location into a meeting point for artists and musicians, resulting in a colourful and lively atmosphere. Inspired by circular projects in Europe and the USA, they developed projects combining work with sports, leisure and urban farming. In less than ten years, 25 businesses established themselves on the new PAKT site.

Chefs, brewers, baristas, coffee roasters, sports enthusiasts and circular initiatives found their way to the site. In 2016, agro-biotechnologist Bram Stessel and community expert Adje Van Oekelen were hired to design a unique 1800 m2 urban circular agriculture project on the warehouse rooftops. In 2017, PAKT became a circular community garden and started to grow vegetables and herbs on the rooftops and sell local products in Antwerp, using PAKT as its base. In 2019, Bram and Adje joined forces with landscape architect Damien Derouaux to set up similar sustainable projects in various cities.

1. Conceptualization of Circularity

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

The central circular concept behind the PAKT project involves the redevelopment of old abandoned warehouses that serve as locations for informal underground parties. Many sustainable and creative businesses are using the buildings today, creating an urban ambience reflecting its circular spirit, authenticity and innovation.

With regards to circularity, the project has two levels:

- The reuse of building materials and original building structures while designing new spaces. The original structure of the hangar has been preserved with due regard for its origins throughout the site. This links the various circular businesses - including a kitchen, clothing retailer, model agency, and daycare centre. It creates a courtyard in this mini city surrounded by restaurants, cafes and coffee bars. The project is not only surrounded by greenery on the site, it includes urban gardens in the form of greenhouses on top of the old warehouses, which also provide space for growing fruit and vegetables. This infusion of sustainability, organic horticulture and food outlets into these converted old buildings has transformed the former warehouses into a contemporary, dynamic and attractive place.
- The recycling of waste products between different businesses, especially within the food production and supply chain.

Including greenhouses on top of the old warehouses provides scope for growing fruit and vegetables that the residents and local restaurants eat. Simultaneously, the farmers make their fertiliser using kitchen leftovers from the restaurants on site.

2. The Sectoral Dimension

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

With the ambition to foster sustainability, the PAKT project focuses on specific sectoral dimensions and redefining supply chain dynamics.

Primarily, it targets sectors associated with the construction sector; agriculture and reuse of biowaste; local manufacturing and sustainable events; and social kitchens. By intertwining these sectors, the project aims to create a sustainable ecosystem that minimizes waste, reduces environmental impact, and initiates a sustainable redevelopment in Antwerp.

From the construction sector standpoint, PAKT focuses on repurposing and revitalizing abandoned industrial spaces within the city. By converting these spaces into vibrant hubs for sustainable living, the project adds value to the urban landscape and promotes a circular economy. Circular construction practices, the reuse of materials, and incorporating renewable energy sources are central to this. Alongside this, it offers service to the city through the construction of greenhouses on rooftops for people living in the neighborhood. The building of these greenhouses extended the approach to circularity through the agriculture sector through PAKT's innovative approach to urban farming. The project seeks to encourage local, organic, and circular agricultural practices. Rooftop gardens, vertical farming, and community-supported agriculture initiatives are crucial in creating a sustainable and localized food system and supporting social kitchen activities hosted in the building.

Lastly, PAKT addresses the circular economy in the context of local manufacturing by promoting circular design principles and the reuse of materials. The project encourages collaboration between local businesses, designers, and manufacturers to create a closed-

loop system where products are designed for longevity, reparability, and eventual recycling.

The PAKT project tackles the intricacies of supply chain dynamics and material flows by reimagining traditional systems. It introduces circular supply chain models that prioritize local sourcing, reducing transportation emissions, and creating interconnected networks between businesses.

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?

PAKT exemplifies a holistic approach to sustainable development, encapsulating a comprehensive sustainability framework and transition concept.

PAKT's sustainability framework revolves around the principles of the circular economy, emphasising resource efficiency, waste reduction, and especially the reuse and remanufacture of existing building structures in Antwerp. The transition concept employed by the project involves a phased approach towards sustainable practices in various economic sectors. From urban development and agriculture to local manufacturing, PAKT aims to transition traditional models towards circular and eco-friendly alternatives. This project is an excellent example of diversified vegetable gardens combining on and off-ground farming on an industrial site. In other words, traditional vegetable growing is mixed with newer techniques, such as rooftop plantings based on low-tech solutions such as aquaponic systems, green walls, etc. The rooftop greenhouses do not yet recycle energy from the building below, but it provides vegetables for a more extended period.

PAKT is integrated into a larger regional and international context by collaborating with regional authorities, sustainability organisations, and international partners. The project is part of the following initiatives:

1) "Creating Space for the City of Tomorrow. Executive summary of the inspiration memorandum for the new Strategic Spatial

Plan for Antwerp".

2) Since 2017, it has become the heart of the *Antwerp Green Quarter*. It shows an excellent example of local and sustainable food projects for municipalities and developing a bridge between local producers and consumers.

This integration enhances the impact of PAKT by fostering city cooperation and leveraging shared resources and knowledge.

To develop this project, a robust socio-economic, legal, and political structure has been conceived and evolved since its initiation in 2017. Socio-economically, the project prioritises community engagement, ensuring local stakeholders actively participate in decision-making. Politically, PAKT operates with the support of local and regional authorities, creating a conducive environment for the adoption of sustainable policies.

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?

PAKT was born as a social experiment where people came together and got to know each other through gardening and sharing food and drinks. Therefore, PAKT operates as a bottom-up project, emphasizing grassroots involvement and community-driven initiatives. Rather than being imposed by top-down directives, PAKT draws strength from the active participation of local inhabitants, stakeholders, and circular innovators who collectively shape the project's trajectory. Moreover, through time, the project has developed an evident social character. Citizens are encouraged to rent and grow their crops on rooftop gardens. They have access to regular workshops and collaborations with organic and local farmers who sell their products online and in high-quality local restaurants. Several Learning activities are organized, such as school workshops, consulting for other urban farming projects, and urban circular practices.

The project is constantly evolving. With the knowledge of the community, local inhabitants contribute ideas, concerns, and solutions. Stakeholders, including businesses, civic organizations, and educational institutions, are crucial partners in implementing sustainable practices.

In the Antwerp context, PAKT holds a flagship and pioneering character, setting an inspiring example for other communities and projects globally. PAKT's social impact transcends the immediate community, influencing broader societal attitudes towards sustainability. By promoting sustainable green practices, the project contributes to a more resilient and resource-efficient society. The emphasis on community engagement fosters social cohesion and a shared commitment to a sustainable future. PAKT catalyzes a cultural shift, challenging traditional models and inspiring communities to reimagine their relationship with the environment and each other.

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 neighborhood scale. In particular, on integrating the main redeveloped building block, the surrounding buildings and open spaces. It involves revitalizing individual industrial spaces within the city, transforming them into hubs of sustainable activity. However, PAKT's spatial focus is primarily at the city level, directly impacting the urban fabric of Antwerp; its influence extends to the regional and national levels through collaboration with relevant authorities and organizations. Regionally, the project aligns with the sustainability goals of Flanders and Belgium, contributing to broader regional development strategies. Additionally, PAKT engages with international organizations, leveraging global best practices and contributing to the collective effort for sustainable development, especially in the context of the European Union's circular economy initiatives.

6. Assessment & Monitoring

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

Even though the city of Antwerp has this project in its circular framework, no precise sustainable monitoring and assessment activity has been developed. However, the social impact of PAKT on residents and visitors is multifaceted. In 2022, this project counted:

One hundred people from the neighborhood regularly participated in growing their vegetables and herbs on the rooftops.

A group of 10 volunteers take care of the rooftop gardens and share their knowledge with local and regional educational institutions.

Indeed, the project offers residents a transformed urban landscape characterised by sustainable living spaces, green initiatives, and local economic development. The active involvement of residents in decision-making processes fosters a sense of ownership and community pride. Visitors experience a city that embraces sustainable practices and offers a unique, vibrant atmosphere shaped by circular economy principles. Beyond aesthetics, the project contributes to a broader societal shift towards conscious consumption, waste reduction, and environmental responsibility.

Colophon

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