BRUSSELS PRODUCTIVE CITY



BRUSSELS PRODUCTIVE CITY

Production belongs to the city.
Let's think the post-industrial city also beyond services and knowledge economy.
Let's imagine the city as more than merely the place of consumption.
In a truly mixed city, we will enable, encourage and celebrate the presence of the productive economy.



VILLAGE DE LA CONSTRUCTION ©port.brussels



INDUSTRY IN THE POST-INDUSTRIAL CITY?

10 YEARS OF THINKING, PLANNING AND BUILDING IN BRUSSELS

Kristiaan Borret - Bouwmeester maître architecte of Brussels Capital Region

Over the last twenty years, the large European cities have become considerably more attractive. Many efforts have been made to restore cities as the preferred place to live, trade, shop and relax. Many wastelands from the post-industrial era have been successfully tackled. Meanwhile, you might say that every brownfield site has been transformed into a fresh-looking residential area, every old wharf has become a waterfront, every former factory building with any value has been given a new purpose. Whether it's Oslo's Aker Brygge, Hafencity in Hamburg, Het Eilandje in Antwerp or Lyon-Confluence, we have created new city areas everywhere with a focus on what we call a high urban mix.

However, how mixed are such new cities in real terms?

Most of the buildings are new residential units. We have also added offices and public facilities, but the focus has been on shops, cafés and restaurants as each new project aims to become a "really vibrant part of town". Now, looking back on more than twenty years of urban renovation, we can see that we have systematically omitted one function: (semi-)industrial economy. Production activity has moved from our city centres to the outskirts, whether this is to a peripheral business park or the other end of the globalised world.

Our urban development, performed under the motto urban mix, is less of a mix than we like to believe. Today's cities are incomplete. We are likely to be experiencing the end of a period of urban development that was typical of the post-industrial era. For many years, we have understood "working in the city" as services and the knowledge economy. Meanwhile, we have gradually become more aware of the fact that production is something that also belongs in the city and that the city should not purely remain a showcase for consumption.

This really requires a mental shift. When we think about working in the city, we need to include "dirty" jobs, and not just white-collar workers. Does the urban amusement of bars, shopping and amazing architectural projects not also include the shadowy world of logistics, recycling and construction? We must learn to see the city's supporting activities as just as urban as the consumption side. They are two sides of the same coin.

Production must be encouraged in the city and included as an integral part of the urban fabric. It must be able to reveal itself, in connection with daily life. Production is celebrated in a city that is truly mixed. The city of the future is a Productive City.

On the agenda in Brussels

In Brussels, awareness of the fact that production activities are also part of the city, began growing years ago thanks to a number of different investigations.

Indeed, in 2012 and 2013, the educational institutions ULB and Erasmus organised the master classes "Re:Work" and "End of Line" about the co-existence of homes and space for industry, logistics or infrastructure on various key sites in Brussels. In 2014, the think tank Architecture Workroom Brussels, the citizens association BRAL and the Flemish network for a sustainable environment Bond Beter Leefmilieu launched a manifesto-type text "Productive BXL" about how Brussels and its metropolitan suburbs could be developed as a single economic urban system.

This pioneering work opened many eyes in the world of politics and in the urban planning and architectural professions. The research dynamic continued later to produce various studies about the position of the productive economy in the urban development of Brussels, such as Urban Metabolism (2015), B-MiX (2015) or Cities of Making (2017-2019).

The subject has also been raised with a broader audience with an interest in culture. In 2016-2017, part of the programme in the architecture biennale IABR in Bozar was "Atelier Brussels. A Good City has Industry". This diverse programme used design-driven research, debates and an exhibition to show the public why and how we can integrate a productive economy in the city.

All of these initiatives led to a lively debate in Brussels about the need to integrate the productive economy in the city; a debate that has meanwhile spread and gained support from politicians. Such support is an essential requirement to allow effective progress towards the development of tools on an operational level and the realisation of real projects.

6 Planning tools

At the same time as the growing awareness on a theoretical level, various tools have been developed within the regular planning system at the Brussels-Capital Region to transform the theoretical debate into effective planning mechanisms.

Brussels is a city with high demographic growth. Over the last ten years, the population has grown steadily by about 1.5% or 15,000 inhabitants per year. This is why there is a constant need to add housing, in order to cater for this growth over the longer term. This urgency is the reason why, in 2013, the Brussels-Capital Region decided to convert a range of plots, which were mainly the remnants of extensive and struggling economic activity from the industrial era, into areas for the development of urban residential districts. Although this new purpose was justified by the anticipated demographic growth, there was also the realisation that industrial land would once again be lost in the city. That is the reason why a correction mechanism was added to the change of land use. The zoning plans for these zones are called Enterprise Zones in an Urban Environment (ZEMU) and target a mix, rather than mono-functional use. In such areas, when dealing with larger residential development projects (as from 10,000 m²), it is essential to include a minimum percentage of productive economy in the redevelopment project. This percentage is equivalent to 90% of the surface area of the ground level layer. In this way the government is encouraging mixed development between places to live and work.

This approach, based on zoning, may appear rather traditional but its efficiency should not be underestimated. It allows the productive city to take

hold in both spatial and financial terms. Businesses are primarily driven out of town because of unaffordable real estate prices. Offices or housing are far more profitable for real estate promoters than businesses. The Brussels zoning plans, ZEMU, are tempering such market mechanisms by reserving space for businesses and, in doing so, breaking through the normal price spiral which occurs when competing with housing or office development. The cost for companies to rent or buy should remain affordable with the planning obligation based on land use. The obligation also forces the private developers of such areas to look for new parties, often unfamiliar because they were very specialised in exclusively residential development. In this way, the developers market is pushed to approach new urban districts in a more mixed manner than before.

Traditional planning tools, such as zoning, help considerably in securing space in the city for productive enterprise and in abandoning the wild competition for more lucrative purposes such as housing or offices.

At another planning level there are strategic visions, which have turned out to be a catalyst in Brussels with which to realise the integration of productive economy in the city.

The most important strategic development zone is undoubtedly the canal zone Charleroi-Antwerp that runs right through Brussels' urban fabric. The canal was the industrial basin of Brussels from early in the nineteenth century but, in recent decades, more and more large-scale economic activity along the canal has either moved away or diminished. Therefore, there were plenty of empty buildings and wastelands. Nevertheless, it is most remarkable - certainly compared with other large European cities - how much industrial activity can still be found along the canal. In which other capital city can you find a rough port area just a fifteen-minute walk away from the historic centre, complete with loading and unloading activities on its quays, sorting companies in the recycling sector, and concrete-manufacturing plants? In other parts of Europe, waterfront development has already taken over in such places but, for a number of reasons, this is not yet the case in Brussels.

This exceptional situation should be viewed as a bonus rather than a problem. It has given us the opportunity to learn from the redevelopment of waterfront areas in other cities before tackling the canal zone in Brussels in a different and more innovative manner.

In 2014, the Brussels Region approved the Canal Plan that was drafted by the French urban planner, Alexandre Chemetoff. The Canal Plan formulates a coherent global future vision for the evolution of the canal zone based on three key objectives:

- The canal zone must be used for the construction of housing and amenities in response to demographic growth;
- The canal zone must change from a barrier between the districts on either side of the canal into a central area that connects the city through public areas;
- Economic activity and employment must be reinforced in the canal zone.

The first vision elements are of course important, but they can also be considered as "normal" orthodox urban planning. They are also being promoted in countless other regeneration areas. On the other hand the third vision element, related to the integration of productive economy with new

jobs for blue-collar workers, is very unusual as a strategic goal. It was very unique when this objective for such a waterfront development was approved as a principle in an official policy document, particularly at the time, now five years ago.

The Canal Plan is currently in the implementation phase, which will last at least ten years, until 2025. While the three strategic objectives have been retained as guidance, the plan has meanwhile evolved. In this operational phase it is characterised more as a "plan of projects'', which aims for as many achievements as possible by means of negotiated urbanism. For this reason, a transversal structure of governance has been created, uniting a dozen of staff from the various regional bodies - SAU-MSI, perspective.brussels, urban.brussels and the Bouwmeester Maître Architecte (BMA) - into one single Canal Team that is responsible for supervising the implementation of the Canal Plan.

Thanks to the Canal Plan, the number of projects involving productive economy in the city has grown considerably in the canal zone, both because of the inspiring urban planning framework and also because of active supervision from the Canal Team. In this way the ancient industrial basin in Brussels is now being reinvented.

Achievements and projects

While planning tools at a higher level are able to ensure that productive economy is not omitted from the centre, these planning tools do not yet provide specific design solutions. Even so, these are essential, since the combination of living and working can cause nuisance and mutual mistrust. Architects and urban planners still have work to do, as we currently have no ready-made examples or designers who are specialised in both aspects of such two-way building programmes. In fact, compared to the nineteenth century, much design talent has been lost, because back then factories, labourers' houses and the director's mansion were all designed by the same person. There is also a similar lack of knowledge in the real estate sector. Professional developers have become increasingly specialised: either in offices, or apartments, or student accommodation, or retail, or business zones. The know-how to run urban mixed development projects is still being reinforced. We need inventive solutions to reconcile homes and businesses in a common building or district.

In Brussels, the public real estate operator citydev.brussels has been working for some time on setting up large mixed projects that combine living and working. Some of their projects, such as Greenbizz, are already up and running and are proving successful. Many new larger projects - by citydev.brussels or by private project developers - tend to favour compact and stacked solutions, whereby homes are placed above a base of productive activities. The question is whether the repetition of such stacked formats across an entire new district creates sufficient animation of street life and does not simply cause the death of the public area. A raised city of residents above a city of workers down under is hardly a model of good urbanisation.

With the BMA team we offer two methods to improve the quality of the integration of productive activities within the city. The first is the supervision of ongoing projects. It is often the role of research by design to explain the advantages of a probably rather complex multifunctional building project to the average factory owner. Secondly, for more and more companies and private or public developers, we are launching an architecture competition in order to receive new, unexpected and in any case high-quality proposals.

The culture of competitions which is unfolding in Brussels, is not limited to typical projects such as schools, cultural facilities or residential buildings, but is extended to programmes of productive economy and logistics. At the same time, the architects are interested in designing this type of programme. The result is that the creativity of good architects is also being captured and applied to more utilitarian programmes and thus adding value to the daily activities in urban life.

Which economy for the city?

For whom are we actually building? If we make all of these efforts to create space for productive economy within the city, at some point the question must also be raised: what kind of businesses do we actually wish to attract? Which economies do we wish to integrate in the city? And why do we actually want economy in the city?

Naturally, we shouldn't bring the steel industry back to the city. Equally, we must avoid a sort of romantic nostalgia which favours the return of pre-industrial craftsmanship. There are currently various job profiles in Brussels in the productive economy which are looking for space in the city.

The creative manufacturing industry is hip among millennials. Traditional production of customised bikes, fab-labs and craft breweries; these are certainly all welcome in the city – but it doesn't end there.

There are also "normal" professions which should be granted space, such as car repairers, building material suppliers or proverbial plumbers. It is just madness that a plumber living in Molenbeek-Saint-Jean needs to start his day by driving to a depot in a business park beyond the Brussels ring road for spare parts, before returning to repair houses back in the city centre. Hardly what you call efficient, ecological and social. The plumber does not need much more than a small depot, workplace or garage and therefore space requirements of such a scale are easily integrated in an urban environment.

In the future, it is hoped that the economy will be more equitable, clean and local and therefore have more potential to become urban. It is worth making efforts to set aside physical space for enterprise now, to avoid having regrets later that we wanted The Next Economy but sadly forgot to reserve room for it.

It is good to keep productive enterprise in the city for economic, spatial and social reasons. A diversified economy is always more resilient when times are tough. That's why it is good to employ the unskilled, not only in tourism, security, catering or the maintenance of Brussels offices, but also in jobs in industry or logistics. By retaining enterprise it is also possible to maintain the slightly rough but unique character of post-industrial areas, like the canal zone, and thus exploit the authentic and local nature of such places rather than wipe it away. From a social perspective it is also a major asset to have more local employment, amongst other things because it this helps the integration of under-privileged young people.

Last but not least, there is also a symbolic dimension: just as we believe that city children must know where milk comes from, our children must also see and understand that things are "manufactured" somewhere by someone and that this creates jobs that we are prepared to feature prominently in our vision of an urban society.

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INTER-BETON

VILLAGE DE LA CONSTRUCTION

GREENBIZZ

CITY GATE I

NOVACITY

CITY CAMPUS

BUDA

MARLY

RECYPARK

BOEREN BRUXSEL PAYSANS

INFRABEL ACADEMY

BPOST DELTA

URBANITIES

IMAL

PEUGEOT-CITROEN-DS

BRASSERIE DE LA SENNE

VIZYON DRINKS

VIVAQUA

FOODMET

BIGH FARM

COOP

BRUSSELS BEER PROJECT

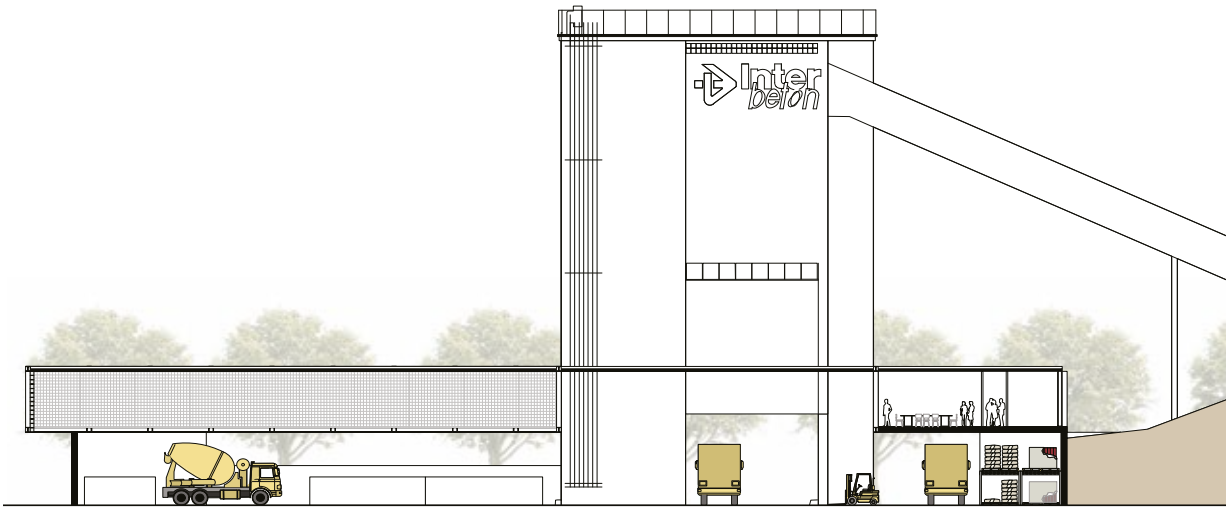
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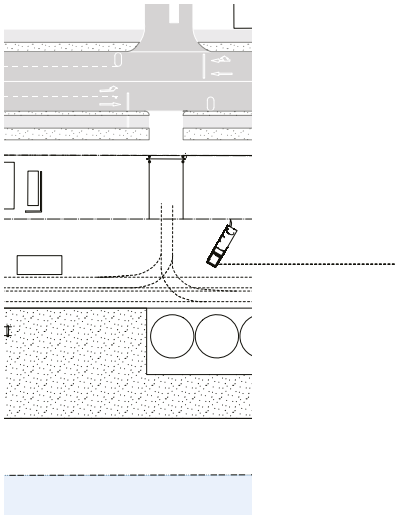
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VERGOTE


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Inter
beton





INTER-BETON

#UrbanIntegration #Rationalisation
#ProductiveCity #CircularCity

Architects
BC architects

Client
Inter-Beton



The Inter-Beton concrete-manufacturing plants lies within the Brussels canal zone, one of the most dynamic areas of the city, as an example of post-industrial reconversion, where private actors, public authorities and civil society negotiate visions on future renewal.

The Brussels Inter-Beton site is especially surrounded by an extremely diverse context: Up-site -the highest residential tower in Belgium-, several administration buildings such as the Flemish government regional environment agency Bruxelles Environnement, Tour & Taxis Park, etc... In order to keep Inter-Beton in the city centre, BMA organised a design competition to envision the conversion of the facility towards an improved urban integration.BC's proposal aimed to answer to pragmatic issues with imaginative win-win solutions for both industry and city. To control sound and dust from the concrete mixing process, a giant canopy is suspended over the work area. The canopy is supported at intervals by dry interlocking concrete block walls and is designed with the height of one floor layer, to allow for the big span as well as to accommodate Inter-Beton office functions at the further end of the canopy. These offices have birds eye view on concrete mixing activities.

At the other end, the canopy hovers over public space. An entrance stairs spirals down to the public walkway, and opens up a public function inside the canopy (e.g. workshops, rehearsal spaces, coworking, ...).
Today, a lot of money is earned through the city, but not always by and for the city. If we can organize manufacturing and logistics into shorter chains and closed cycles, the city will be more sustainable and a larger part of the value will remain in the city. Reconverting an inner city concrete mixing facility gives obvious benefits with regards to short supply chains of building materials. Returning trucks gather 20 m³ of concrete waste every day. Architects propose to use this waste for precast dry interlocking concrete blocks that will become the support base for the suspended canopy. Concrete and glass block façade infill panels can also be produced. More elaborate research will assess the feasibility of manufacturing precast pre-tensioned structural elements on site with the concrete waste.

Located on the crossing of the new Tour &Taxis axis and the to be reconverted Avenue du Port, the canopy frames the concrete mixing tower and renders it into a landmark accessible to the city, making Brussels proud of its industrial integration into new highly mixed neighbourhoods.

01

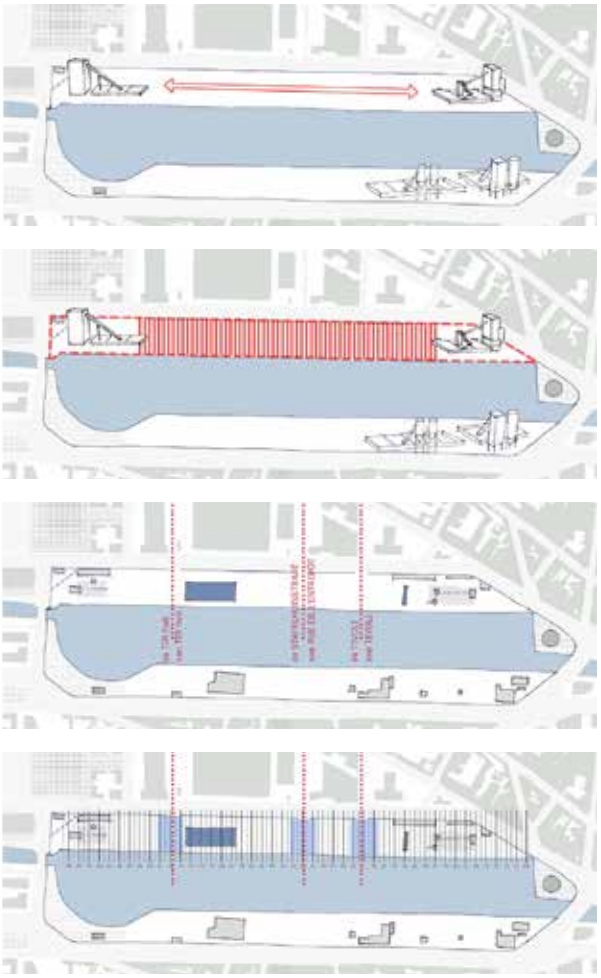
Site
Avenue du Port 63, 1000 Bruxelles
Havenlaan 63, 1000 Brussel
50°51'57.5''N 4°21'07.0''E

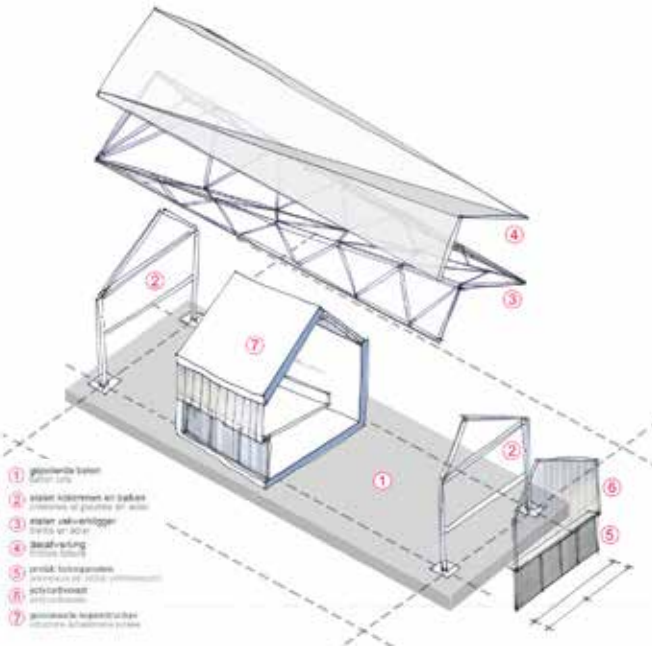
Area
13,000 m²

Status
Design Development

Year
2016 - Ongoing

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BC architects








gebouw A
gebouw B
tussen
gebouw C

VILLAGE DE LA CONSTRUCTION

#UrbanIntegration #Relocalisation
#MicroZoning #Densification

Architects
TETRA architecten

Client
port.brussels



In many cities, old port areas are transformed into new urban areas. The transformation of the Brussels canal zone is more subtle.
The port district is not moving up to new, virgin territory beyond the city. Port activities in Brussels are being transformed within its existing territory. The zone is embedded in the city and is in full development. Port activities therefore raise existential questions.

The key question is how an industrial activity can work as an integrated line of business in an urban area. By focusing on sustainable urban logistics and distribution, water-based businesses add value to the city. Inland waterways allow you to reach deep inside the city centre and reduce polluting and dangerous freight traffic.
The port areas themselves, which divide the urban agglomeration in two, form an industrial theatre where enterprise is on show.

The site is bounded by concrete-manufacturing plants. The silos and eccentric landscapes of sand, cement and granulates give the village of construction material an appropriate character.
An immaterial grid is rolled out to create more uniformity in the terrain between the concrete-manufacturing plants. At a cadence of 20 m – the distance between two boulders on the quay – the grid divides the site into 31 bays. Each bay is then further divided into two modules of 10x36m.
The entire area forms a modular strip in which the buildings and open spaces are arranged. The open areas are ingeniously provided in spaces at the far end of the straight streets.

This form the connection between the residential network and port activities. The perspectives and transparent views of and over the canal are just as important in this spatial context as the actual spaces in between.
Against the open backdrop of these urban vistas, the outsider is granted a view of the hustle and bustle at the front of the construction material village. The modules, which look onto the open spaces in-between or are located at the far ends of the modular strip, have a privileged place at the head of a hangar. These are the most appropriate areas to accommodate the semi-public components in the programme, such as shops and showrooms.

The roof structure is a variation on the emblematic saw-tooth roof design in which a diagonal folded seam is added. This creates a rhythmic ensemble of staggered roofs, under which you will find three hangars, an open canopy structure for loading and unloading and an intermediate entrance area onto which the wholesaler's shop opens.

02

Site
Avenue du Port 71, 1000 Bruxelles
Havenlaan 71, 1000 Brussel
50°52'06.1"N 4°21'14.2"E

Area
7,000 m² Warehouse
8,000 m² Outside Storage
1,600 m² Showroom & Offices

Status
Build

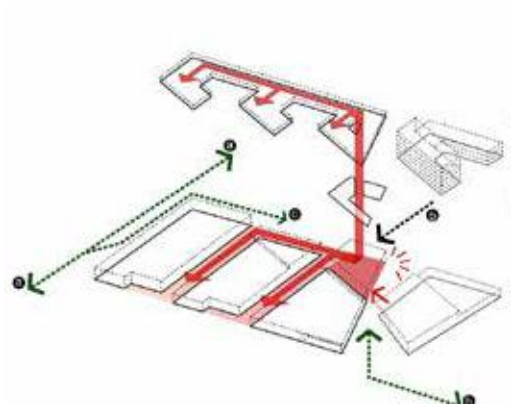
Year
2013-2018

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TETRA architecten I Filip Dujardin

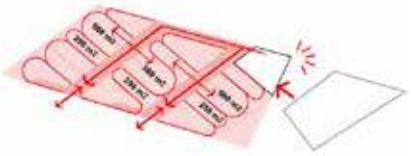


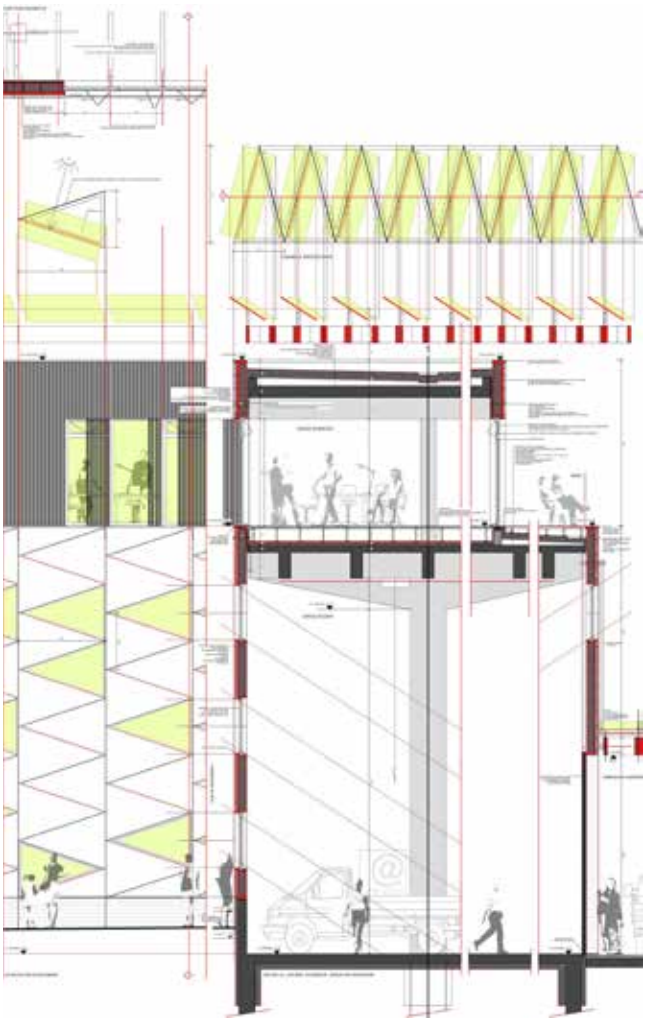
VILLAGE DE LA CONSTRUCTION ©Filip Dujardin

















GREENBIZZ

#UrbanIntegration #MicroZoning #CircularCity #HorizontalMixedUse #ProductiveCity

Architects
Architectesassoc.

Client
citydev.brussels



Located on a long-abandoned and polluted 4-hectare industrial site near the city centre, Greenbizz is part of a large-scale 14-hectare urban development called Tivoli, publicly funded by European funds (ERDF) and citydev.brussels includes both housing and economic facilities in which Greenbizz holds the pivotal role.

Sitting in limbo between these apparently opposed activities, the project's role is to create synergy: encouraging visitors as well as occupants, confirmed specialists as well as budding pioneers-to-be, adults as well as children to be part of the collective emulation housed within. Its dynamic, generous, and permeable organisation, its mission to create responsible employment, and its clearly expressed sustainable identity all carry the same message: sustainable design can and must be about so much more than implementing energy-efficiency and responsible material-sourcing ... sustainable design must be about implementing hope.

03

Occupying the most strategic corner on site, the grand entrance lobby is a high-ceilinged light-filled communal space greeting occupants and visitors, but also the neighbourhood and all its inhabitants.

Six and eight meters high inside, workshops face each other alongside two covered open-air streets federating activities arranged along them.

Perched above the workshops but only one-level thick, the incubator lies low in order to ensure maximum sun penetration into housing across the street. It bridges the bustling open-air streets below, and gently folds itself around two sun-filled patios.

Let it be noted that the build and unbuild forms of Greenbizz do not embody the end result or final product of any one of the particular workshops inside, however sustainable their production might be ... they embody instead the federating experience going on inside these workplaces, the collective effort, the emulation, the bustling exchange. Work is expressed as something lively, something tempting, something to share, something permeable, something responsible and especially something accessible to all especially to the children playing ball on that plaza or sitting around watching the ballet of carts in those open-air streets.

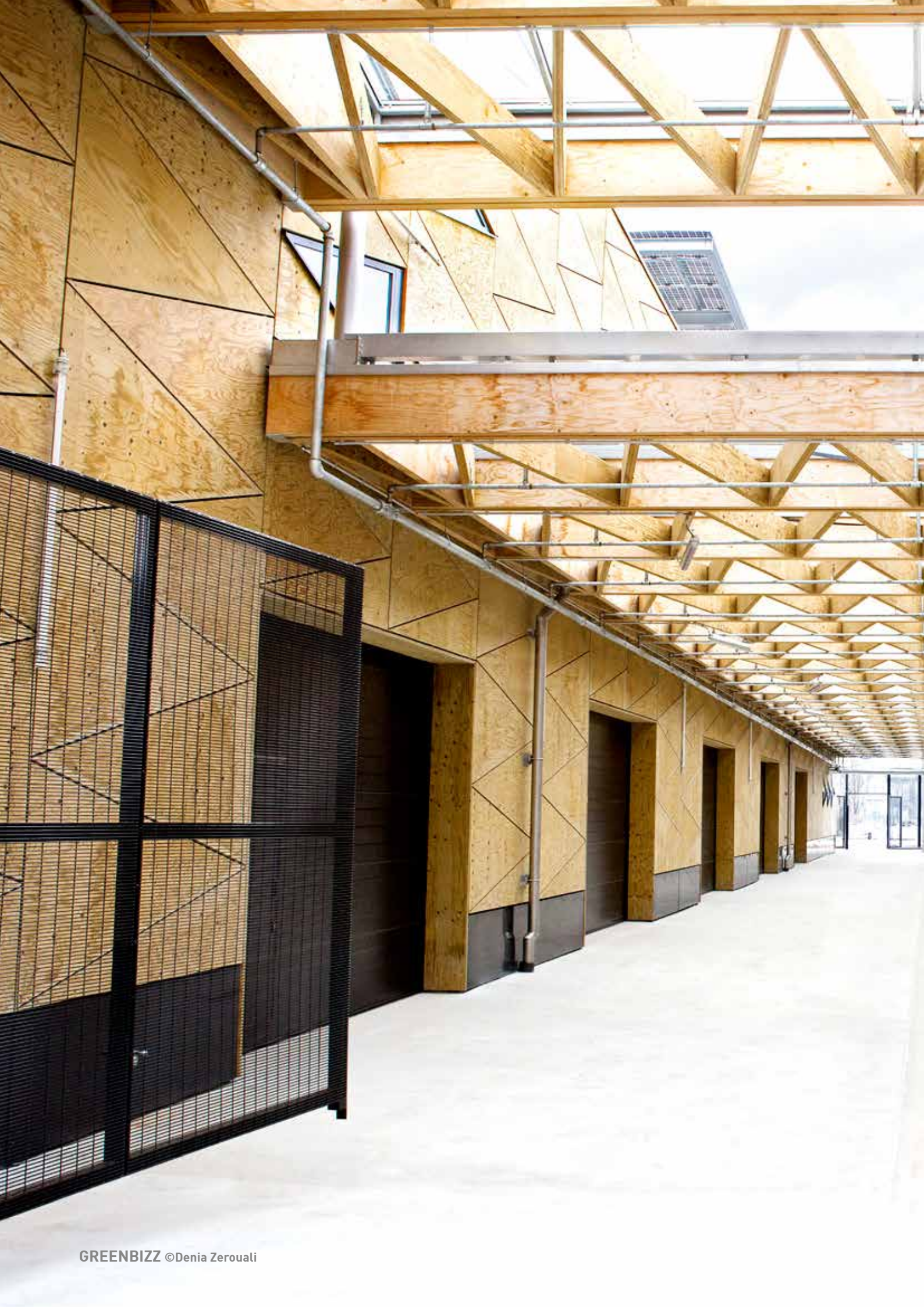
Site
Rue Dieudonné Lefèvre 17
1020 Bruxelles
Dieudonné Lefèvrestraat 17
1020 Brussel
50°52'15.3"N 4°21'01.9"E

Area
9,500 m² Workshop
2,500 m² Incubator

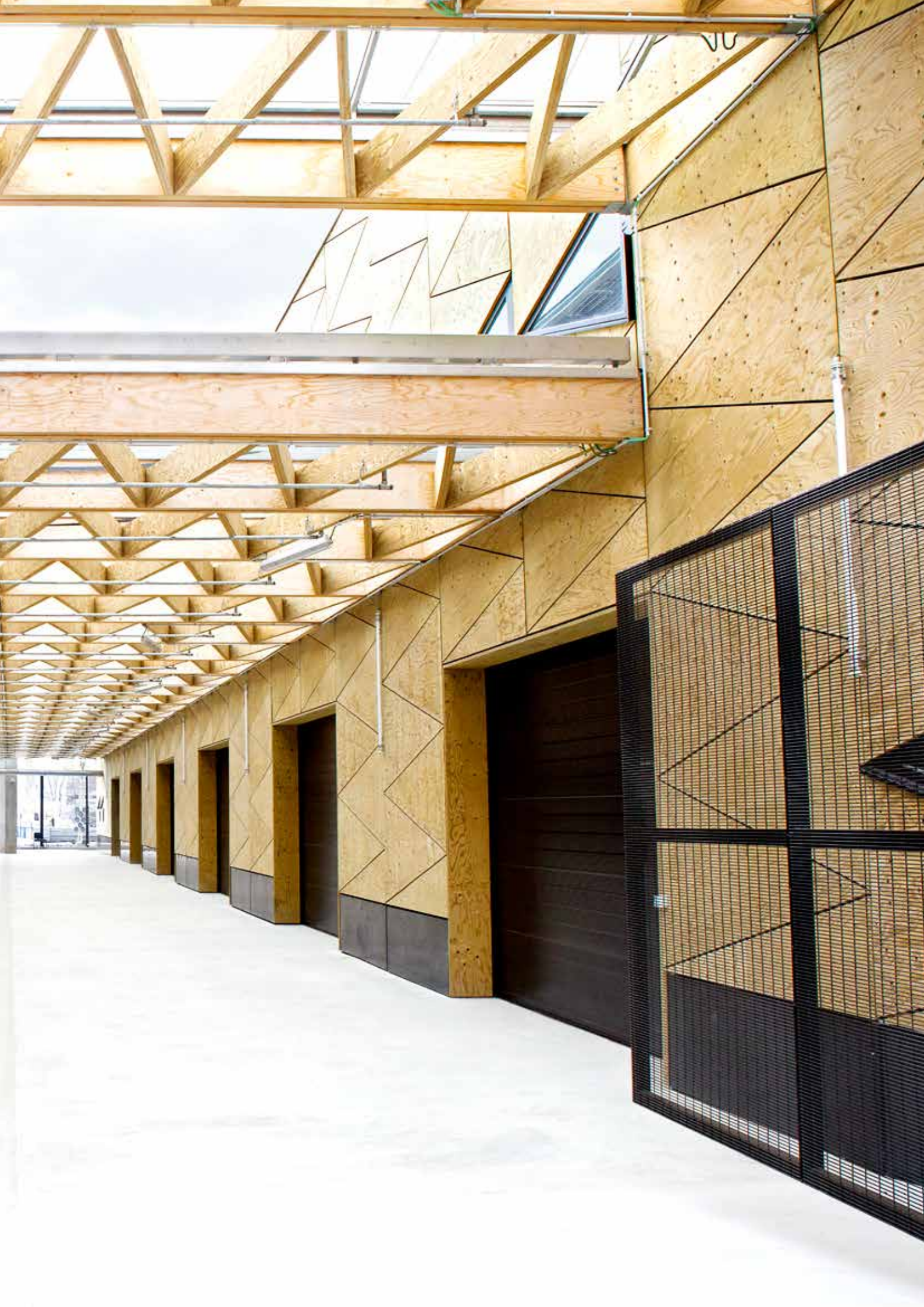
Status
Build

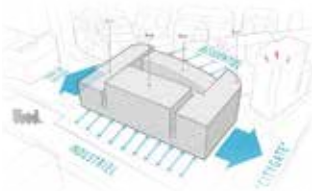
Year
2014-2015

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Architectesassoc. I Architects,
Renaud Callebaut



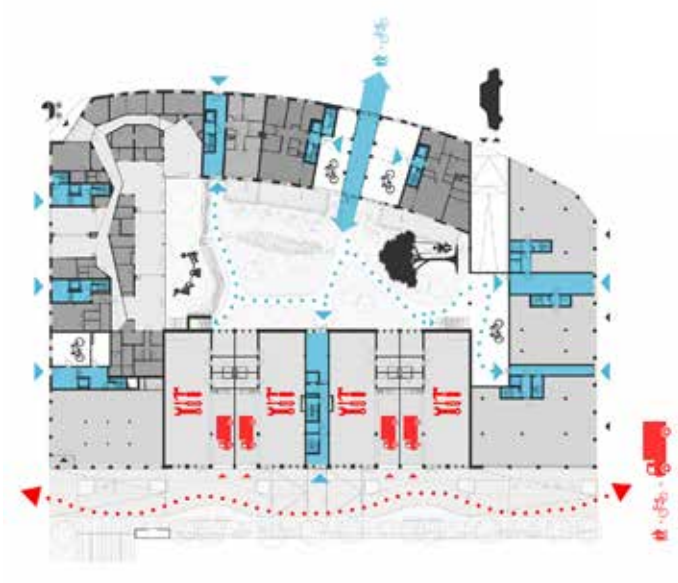
GREENBIZZ ©Denia Zerouali















CITY GATE I

#VerticalMixedUse #ProductiveCity #DenseCity #MultifunctionalBuilding

Architects

A2M + URBAN PLATFORM + ORG

Client

KAIROS for citydev.brussels



The "City Gate I" project is strategically located in one of Brussels entrance areas, at the intersection of a railway line, thereby forming an important urban transition between the industrial area of Anderlecht and the neighbourhood of the Brussels South Station.

The project has to meet the challenges Anderlecht is currently facing: lack of green spaces, high-quality housing and public facilities, and the need for an interesting use of the plinth of the building for production activities . The goal is to realize a fully multi-purpose building.

Despite the dense programme set out in the existing masterplan, the ambition of the project is to provide a strong architectural expression while at the same time making a subtle transition between the different quarters on either side of the project. The grid of a generic facade covers a flexible organisation of the interiors and thus responds to the multi-purpose concept of the building.

The specificity of the "City Gate I" project lies in the multiplicity of uses and the management of the interactions between these. The programmatic mix of the project requires clarity about the entrances and a sound implantation of the economic activities with respect to the viability of the housing units and the relationship to public spaces.

The production workshops face the embankment of the railway tracks and are located on the ground floor, on either side of the central entrance leading to the upper levels. Their flexible configuration enables to combine two workshops into a single entity.

The project reduces noise and smell nuisances generated by these production workshops. For example, some workshops are fitted with skylights in order to limit the openings towards the inner courtyard, and ventilation systems that are directed towards the roof.
Furthermore, the first floor, being located above the workshops, will serve as a buffer layer to protect the residential quality of the upper floors.

04

Site

Rue des Goujons - Rue des Marchandises
1070 Anderlecht
Grondelsplein - Goedereenstraat
1070 Anderlecht
50°49'56.7"N 4°19'23.4"E

Area

14,200 m² Public housing
1,150 m² Productive activity
4,640 m² Multifunctional building
680 m² Nursery

Status

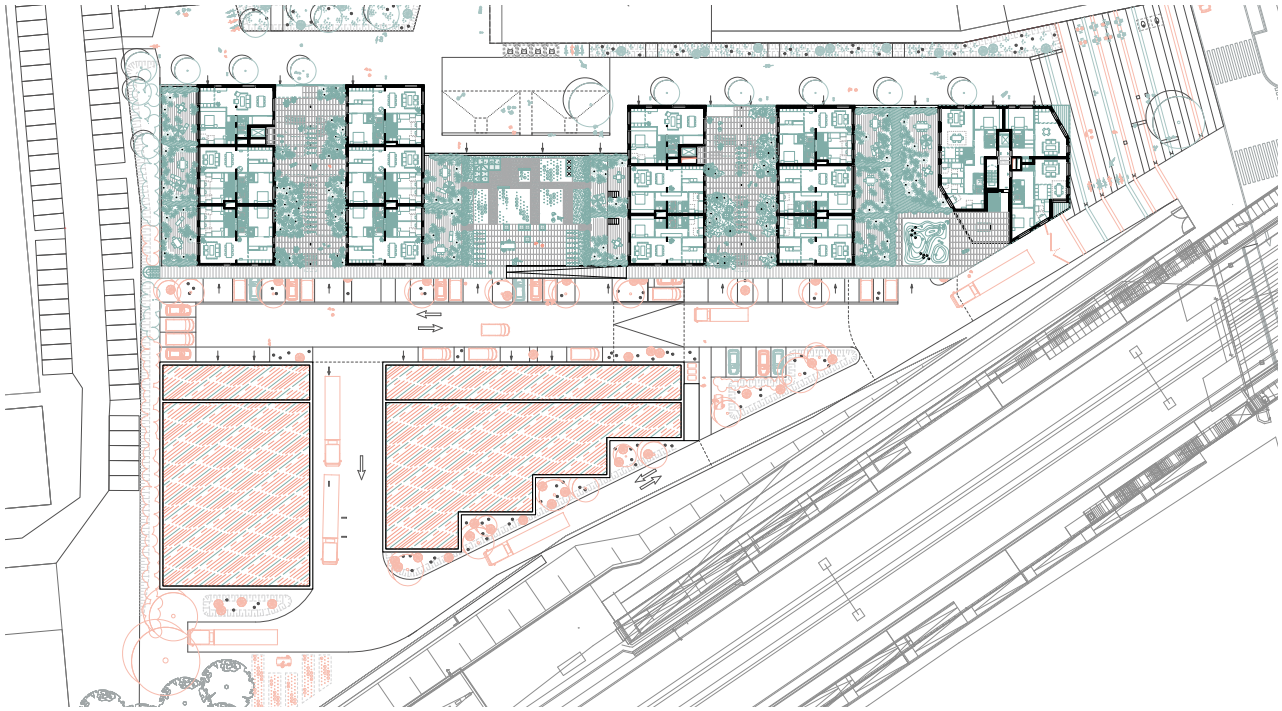
Design Development

Year

2017 - Ongoing

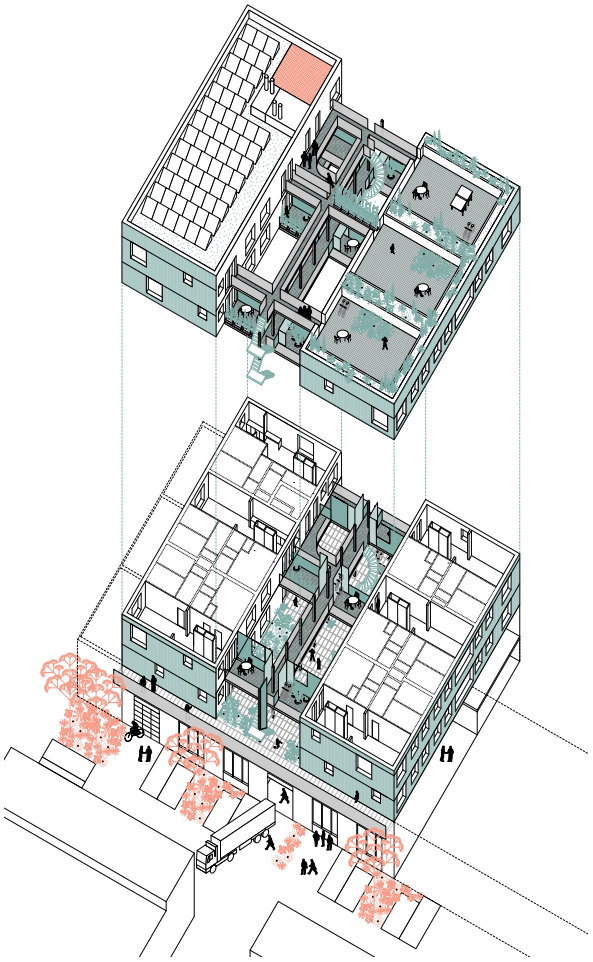
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ORG I Architects









NOVACITY

#ProductiveCity #VerticalMixedUse
#DenseCity

Architects
DDS+
Bogdan & Van Broeck

Client
KAIROS for
citydev.brussels



The project NovaCity takes place in Anderlecht, in a redeveloped brownfield along the Chaussée de Mons. The goal here is to mix up different functions like housing, economics activities and offices. However, NovaCity goes far beyond the juxtaposition of functions.

The three main ambitions of this project are:

- The viability of the different functions on the site and their good integration in the context;
- The global valuation of the site and its environment;
- The concern for exemplarity and innovation.

05

Site
Chaussée de Mons - Rue des Trèfles
1070 Anderlecht
Bergensesteenweg - Klaverstraat
1070 Anderlecht
50°49'06.8"N 4°17'24.2"E

Area
7,800 m² Public housing
7,600 m² Productive activity

Status
Design development

Year
2016-Ongoing

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Bogdan & Van Broeck
I Architects , Buur

The build spaces are organised to offer opportunities for encounter, interactions, conviviality, and in return they generate qualitative open spaces hosting a constellation of collective places to inhabit.

On the ground floor, the workshops of the SME's are distributed on both sides of an active street that constitutes a backbone for daily interactions between the different users. In direct relation with the workshops, a double height of retail and offices offer a transitive interface with the neighbourhood, and share an address with the housing blocks.

Above this plinth, a skyline of various heights animates the visual sequences of a new pedestrian street, and allows natural sunlight to reach the heart of the site. Diverse collective spaces are located on the roofs of the SME's, in the voids between five different volumes.

A small housing tower articulates the transition from the Chaussée de Mons, and four urban blocks are paired two by two around vertical patios where terraces constitute a convivial threshold between community and privacy.



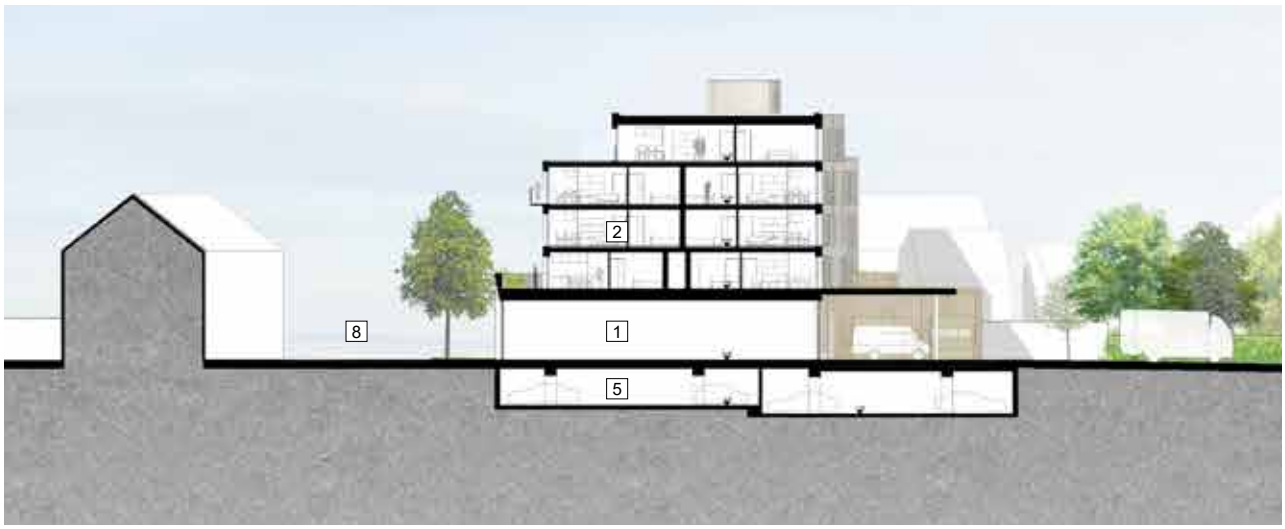
NOVACITY ©Architects








Rue des Grives
Rue Emile Gryson
Rue des Fraises


2
8
1
5

CITY CAMPUS

#VerticalMixedUse #BrownfieldRedevelopment #DenseCity #ProductiveCity

Architects

Crepain Binst Architecture + ORG

Client

Van Roey Group for citydev.brussels



The project City Campus is located on an old industrial derelict property close to the campus CERIA/COOVI in Anderlecht. The programme responds to this particular context: productive studios for companies involved in the food industry, social housing and housing for students.

The project divides the site in two sections, separated by a qualitative public space: a pedestrian residential courtyard where the neighbourhood inhabitants can meet.

At one side, the social housing, bordering the courtyard consist of row houses that integrate harmoniously with the existing housing of the neighbourhood. The plinth at the other side of the pedestrian street, is made out of a SME park.
Every studio gives out onto the public space and is accessible for logistic purposes from an interior courtyard. This courtyard is covered by a green sound insulating canopy limiting the hindrance for the adjacent housing. The studios are modular and can be adapted to all sorts of different activities.

The social housing and the student housing are located above the ground floor studios. Each home has access to pleasant gardens, established on the roofs that will foster interaction between the inhabitants.

The project consists of different kinds of social housing. Some are accessible to people with reduced mobility. All apartments have their own external space; the homes along the residential courtyard have each their own garden. The students dispose of communal living, studying and relaxing spaces that are spread throughout the building.

In other words, the project corresponds not only to the needs of the housing and the SME butit also provides qualitative communal spaces that increases the level of solidarity, social contact and identity for the City Campus site.

06

Site

Rue des Grives - Rue des Fraises
1070 Anderlecht
Lijstersstraat - Aardbeienstraat
1070 Anderlecht
50°48'59.0''N 4°17'42.6''

Area

7,000 m² Public housing
9,000 m² Student housing
5,000 m² Productive activity

Status

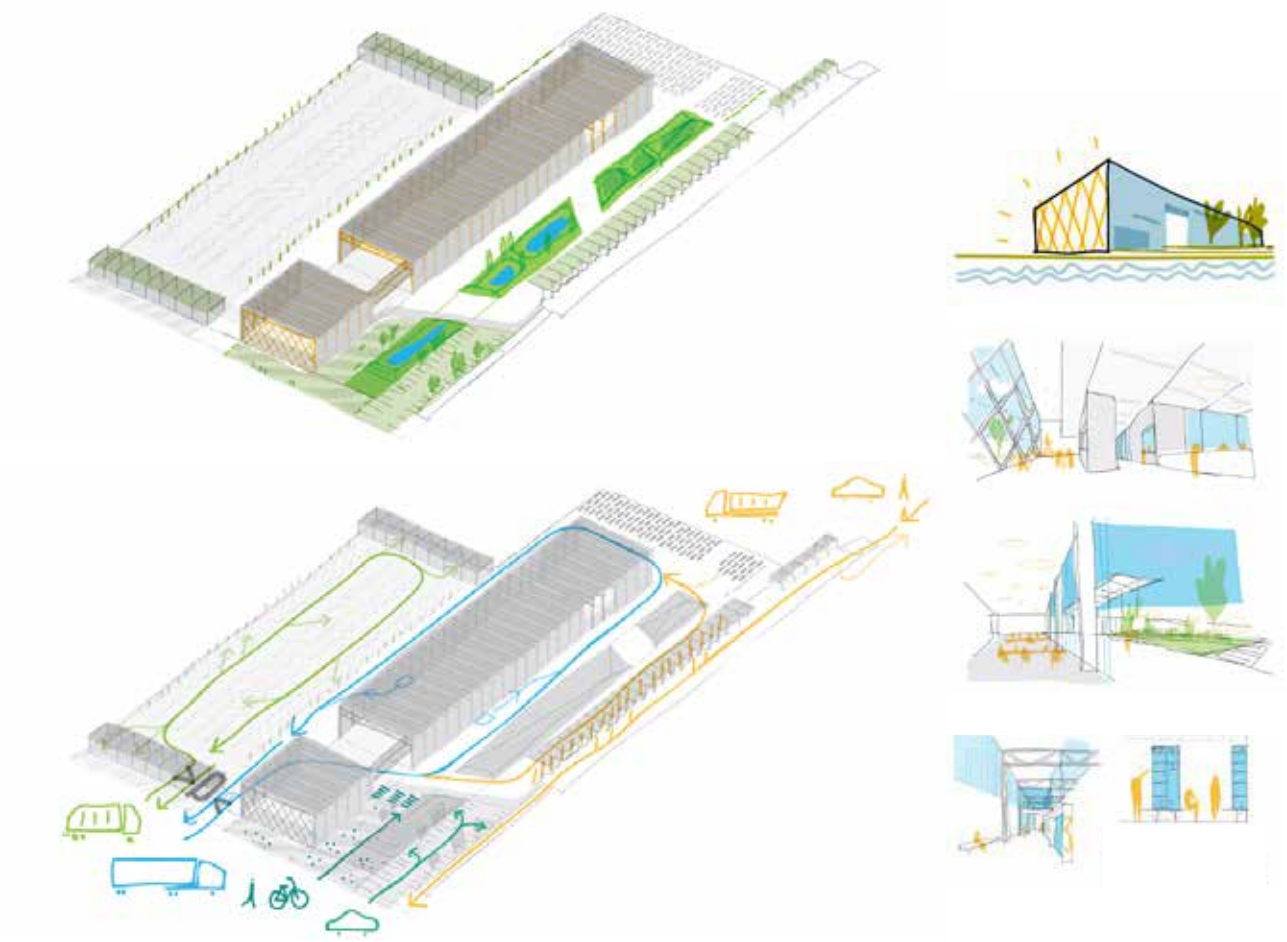
Planning Permission

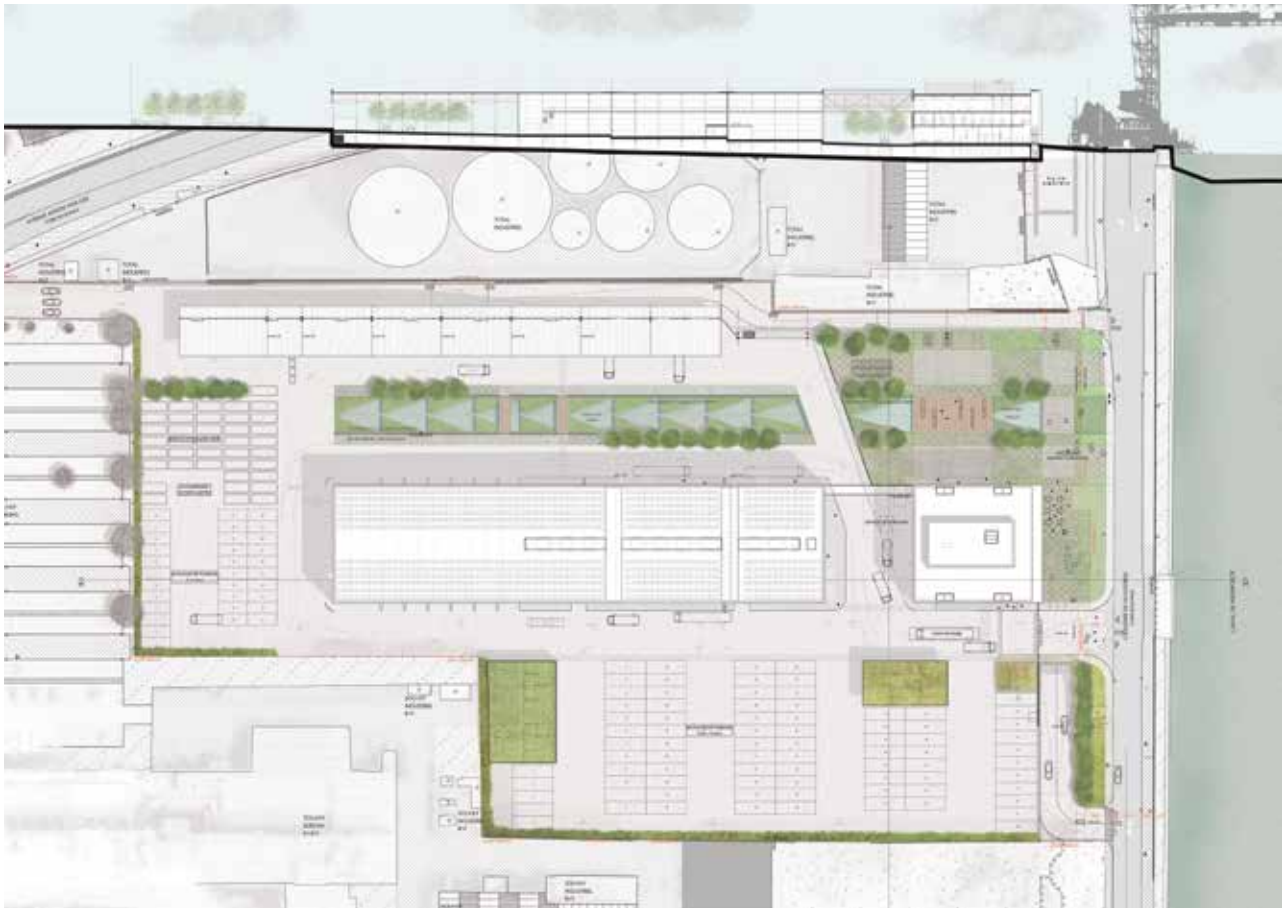
Year

2014-2020

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ORG I Architects





BUDA

#UrbanIntegration #Be.Exemplary2016
#Logistics #CircularCity

Architects
Atelier 229
+ EVR architecten

Client
propreté.brussels
net.brussels



Buda is a pilot project for the regional waste management agency ABP bruxelles.propreté. It groups a series of activities and logistics on one site that is part of the Canal Plan. The project, rather than being perceived as a factor of nuisance, will play a key role in improving the area and in developing tomorrow's mixed urban landscape. The logistical and implicitly functional nature of the site implies a very simple landscape design and requires little maintenance work to ensure maximum impact.

ABP wants a lot of activities to be organized on the site, so the programme requires density. It is important to ensure that traffic can flow optimally throughout the site. That is the reason why the project divides the site it into clear strips allowing for intuitive traffic. The organisation into functional strips and the clear separation between public/private areas provide for a safe and efficient site where crossing points of different traffic flows are limited.
The green strip extends perpendicularly to the canal to create a large multi-purpose welcoming esplanade.

This green space will serve as a natural filter for runoff water (filtration of hydrocarbons). This constructed wetland will also serve as a retention pond.

Most of the activities are grouped within a compact main area in order to rationalise investments and maintenance costs, and to achieve a visible anchoring point along the canal. The shell of the main volume is build using as little material as possible, for the purpose of making the building more readable and facilitating its implementation. The shell is completely independent from the main structure, and the techniques implemented remain visible to facilitate maintenance operations and their future adaptability.

To limit terracing work, the project takes full advantage of the natural slope: the upper section of the site at the rear houses the smaller halls, and their volume then increases over cascading levels towards the lower portion of the plot of land on the canal side, where the larger halls are situated and finally the central building of three levels. The wooden archways of the halls act as the architectural backbone of the buildings and open onto the canal to create a large fishnet pattern, representing an urban interface as well as a strong but subtle ABP display window overlooking the canal.

07

Site
Chaussée de Vilvoorde 202
1120 Bruxelles
Vilvoordsesteenweg 202
1120 Brussel
50°54'14.9''N 4°24'23.6''E

Area
29,000 m²

Status
Planning Permission

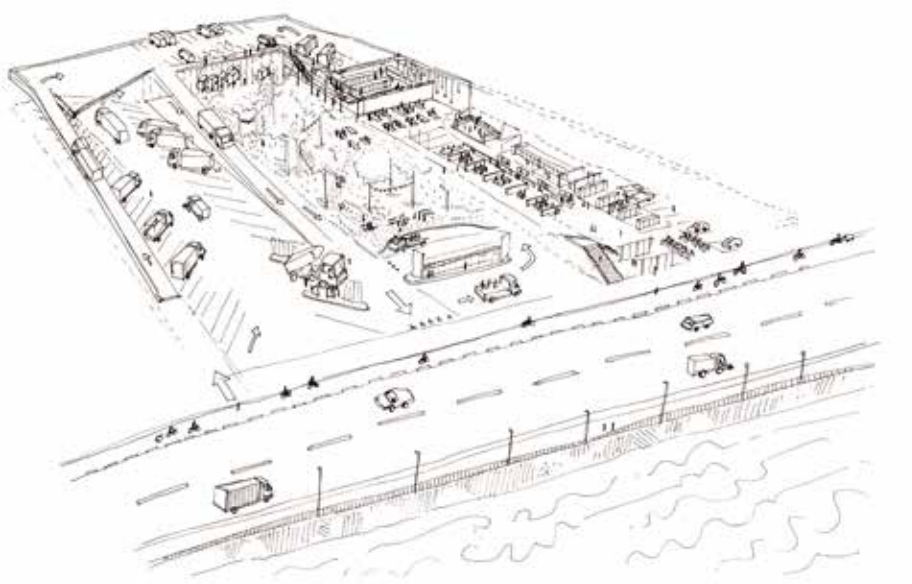
Year
2016-Ongoing

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Atelier 229



BUDA ©Architects





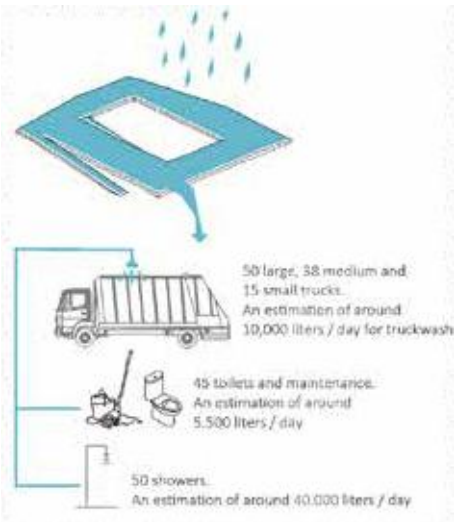







CO_2
O_2




50 large, 38 medium and
15 small trucks.
An estimation of around
10,000 liters / day for truckwash
45 toilets and maintenance.
An estimation of around
5.500 liters / day
50 showers.
An estimation of around 40.000 liters / day

MARLY

#UrbanIntegration #Logistics #Rationalisation #BrownfieldRedevelopment

Architects
TETRA architecten

Client
propreté.brussels
net.brussels



In this project, logistics activities are combined with a high-quality green space.
The spatial proposal crosses the Meudon Park towards the canal. In doing so, a green space is created, which extends like a coherent green unit entity over the borders of the limits of the site plot boundaries, giving the industrial landscape a new identity.

The extensive programme (staff buildings, covered and open car parks) is stacked functionally, compactly and qualitatively around the green zone, minimising the noise and nuisance from the combustion gases from the rolling stock for employees. The green zone with its tall trunks is the focus and will act as a filter, increasing the working comfort of staff and also caring for the air quality in the neighbouring district.

The design exposes the logistics activities of the city cleaning service and emphasises that these activities are an integral and vital part of the city's daily operations. The proposal creates a new building line on the street side that runs to the inside of the created building block, making the green zone and various connected activities in the project (cleaning, inspection of the vehicles, etc.) visible from the public space. The view of the industrial activities creates an urban theatre along the canal.

Furthermore, in the longer term, the project will make it possible to cross the site, allowing Meudon Park and Neder-Over-Heembeek to be connected from the quays.

The building is designed like a 'concrete coffered-structure', which stretches from one end to the other and which offers bruxelles.propreté and any later users tremendous flexibility. In this way, the structure does not assume to know the many potential uses of the building in the future. The staff rooms will be located in the north wing. The south wall, where the offices and dining area will be, looks on to the garden. These rooms will enjoy the heat of the sun, particularly in the winter months when the trees have lost their leaves. The dining area is central to the garden and is construed as a qualitative and open meeting area.

08

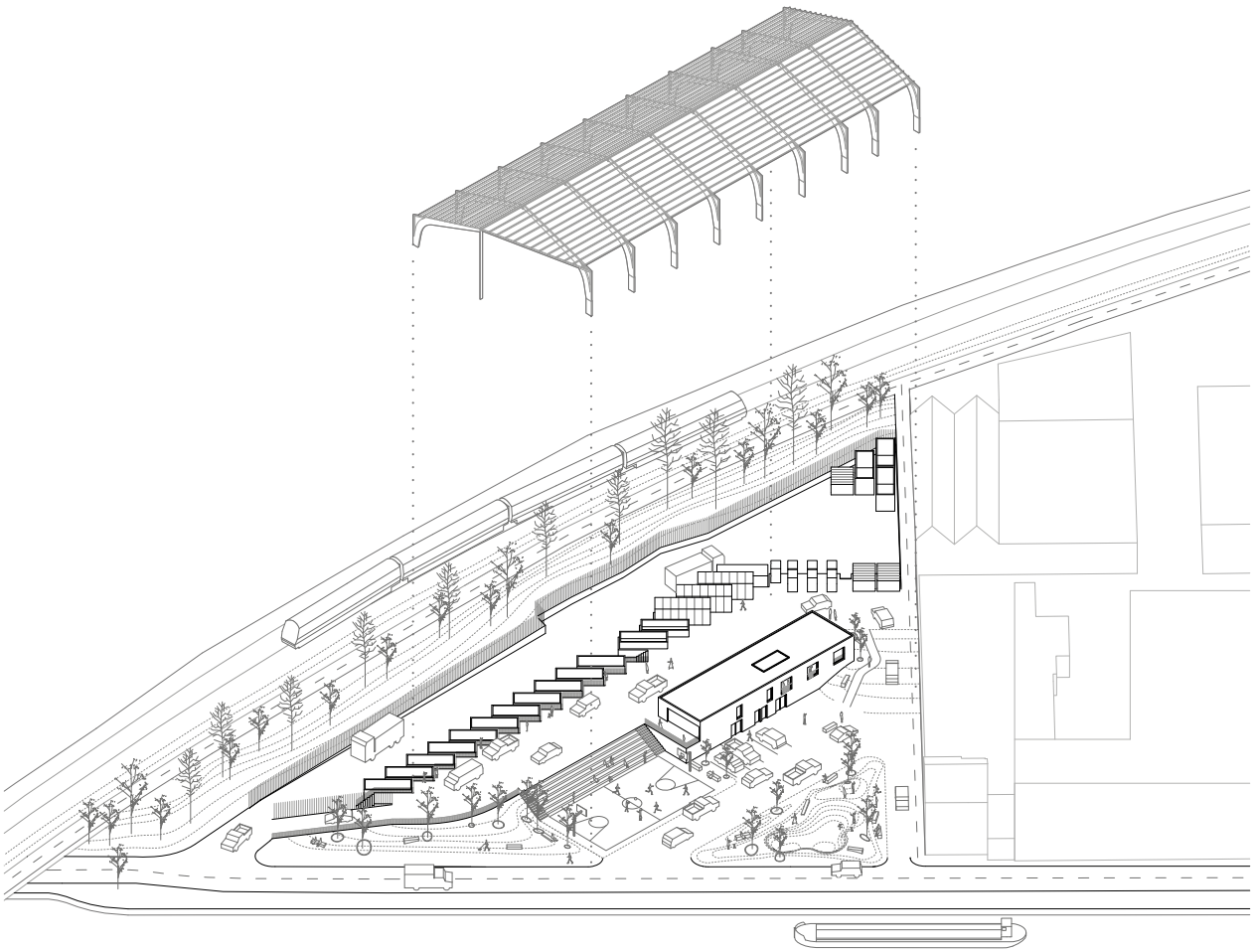
Site
Chaussée de Vilvorde 154
1120 Bruxelles
Vilvoordsesteenweg 154
1120 Brussel
50°53'48.6''N 4°24'02.5''E

Area
2,000 m² Services
9,000 m² Parking

Status
Cancelled

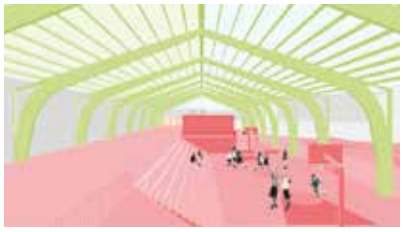
Year
2016-2018

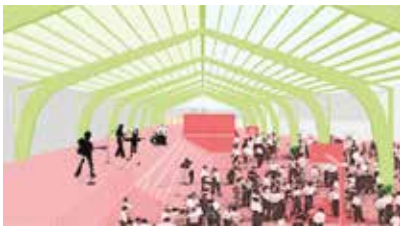
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TETRA architecten

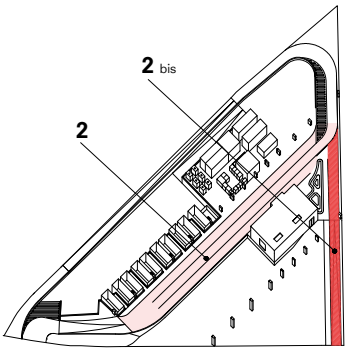




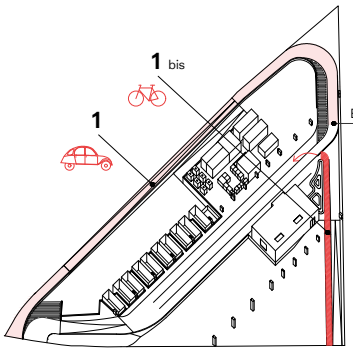




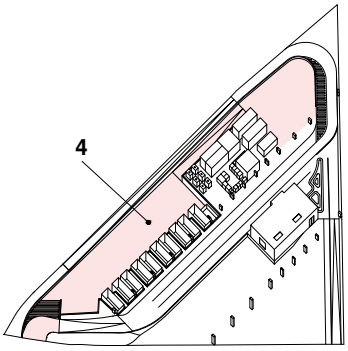




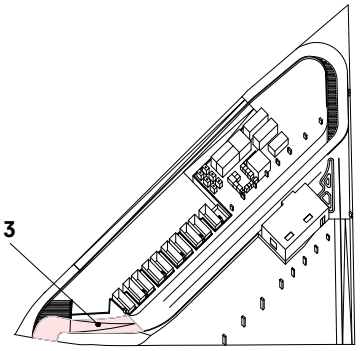
Accès au quai de déchargement
ou retour à la voirie



Accès Recypark



Zone de circulation professionnels



Fin de quai, retour à la voirie

RECYPARK

#UrbanIntegration #ERDF #Logistics
#CircularCity #HorizontalMixedUse

Architects
51N4E + ROTOR + Witteveen+Bos

Client
propreté.brussels
net.brussels



The increasing popularity of recycling parks in the Brussels region reflects the fact that its inhabitants are developing more and more environmental awareness.

The way the brussel's inhabitants perceive our waste has evolved and with this change, the perception they have of recycling parks is becoming more positive. One's waste is another one's resource, and recycling parks are an essential link within the circular economy. Therefore, recycling parks are progressively becoming more relevant in our daily lives, and deserve more attention.

But how can these programmes be made more acceptable, and even become an integral part of the city, and not merely the underside of the urban landscape?

The regional waste management agency ABP bruxelles.propreté is planning to build a new series of Recyparks in order to improve a better distribution throughout Brussels.

09

To facilitate the integration of a Recypark in a more central urban environment, the juxtaposition of a public area that includes a skate park and green spaces will serve as a buffer to mitigate the nuisances generated by a Recypark programme.
Furthermore, this diversity ensures that the project is open to all and becomes a true living space, a regular venue for skaters and local residents.

A hall covers both the unloading dock of the Recypark and a portion of the public space. Considering the context of the project and ABP, this structure raises the question of using recycled materials for its construction.

In Liège, the architect came across a former horse pen featuring a structure made of archways of glued laminated timber. It was disassembled, stored, and will be reused as a part of the structure of the new Recypark canopy.
The hall represents both a symbol of the exemplary nature of the project, and a non-anecdotal effort to reuse construction materials.

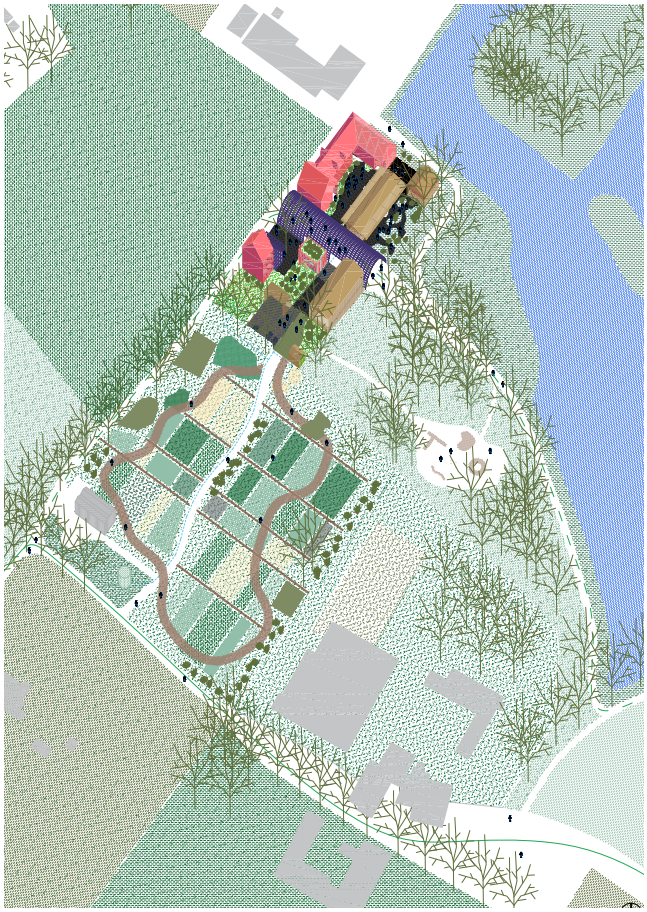
Site
Quai Demets 22, 1070 Anderlecht
Demetskaai 22, 1070 Anderlecht
50°50'19.4''N 4°19'04.9''E

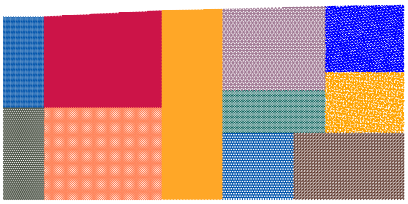
Area
4,000 m² Recypark
Skatepark

Status
Planning Permission

Year
2014 - ongoing

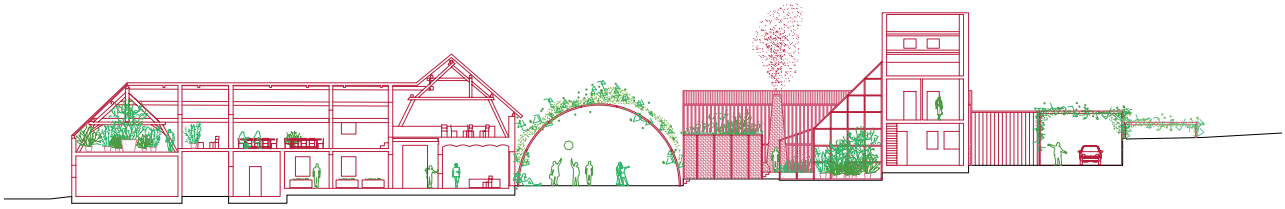
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51N4E I Architects

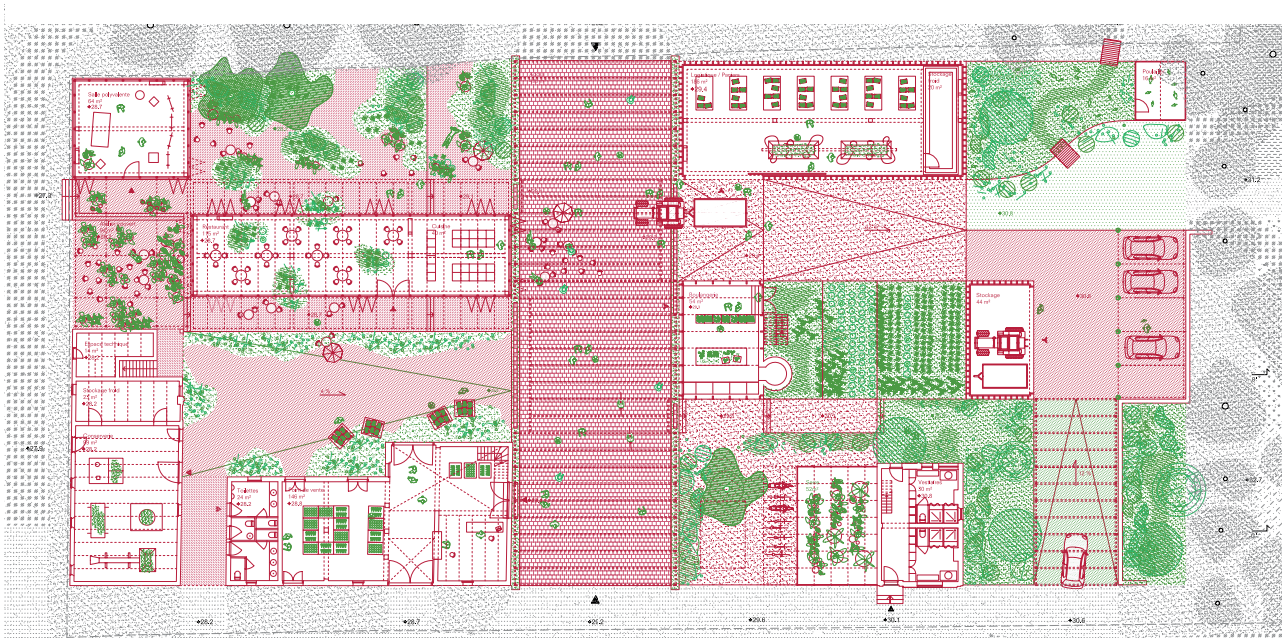












BOEREN BRUXSEL PAYSANS

#ProductiveCity #CircularCity
#UrbanFarming #GoodFoodBrussels

Architects
51N4E

Client
bruxelles environnement leefmilieu brussel



The regional environment agency bruxelles environnement is converting a farm located in the heart of the farming area of Neerpede for the double purpose of promoting local organic produce and to support project leaders involved in the dynamic of transition towards a sustainable food system on the scale of Brussels Capital region.

The project relates to the conversion of an archetypal ancestral farm. While traditionally organised inwardly – to protect the central courtyard – it is transformed into a new morphology, which is no longer a farm but a place where public and professional activities are meeting.

The project combines many independent elements into a whole which is greater than the sum of its parts. Special attention was given to achieving a perfect blend of natural and constructed elements: the type of interaction that we are keen to generate requires an approach that is more than merely functional.
The ambition is to offer an environment in which nature and architecture find their balance. The project combines mineral and plant materials, and its spatial organisation encourages discoveries and exchanges.

The setting is one of warm and welcoming atmospheres and green spaces, each featuring its specific production and educational value. The result is not only a great diversity of locations, but also to successfully showcase the numerous opportunities of connecting city-dwellers with the surrounding countryside.
These spaces encourage visitors to do their bit at home, and to imagine a world beyond the boundaries of the project. It is also a place where professionals can network, as it is conducive to sharing, transmission and synergising material means.

Far from an introverted organisation, the Ferme du Chaudron becomes an area that complements the adjacent park, as well as the various institutions and leisure facilities of the neighbourhood. It represents a dynamic space, with lush vegetation, inviting visitors to wander around and to marvel, to eat local produce, and to enjoy a drink while supporting local productivity and healthy farming.

10

Site
Rue du Chaudron 20
1070 Anderlecht
Ketelstraat 20
1070 Anderlecht
50°49'34.9''N 4°16'08.5''E

Area
800 m² Productive Activity
Agro-alimentary Sector

Status
Design Development

Year
2017 - Ongoing

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51N4E



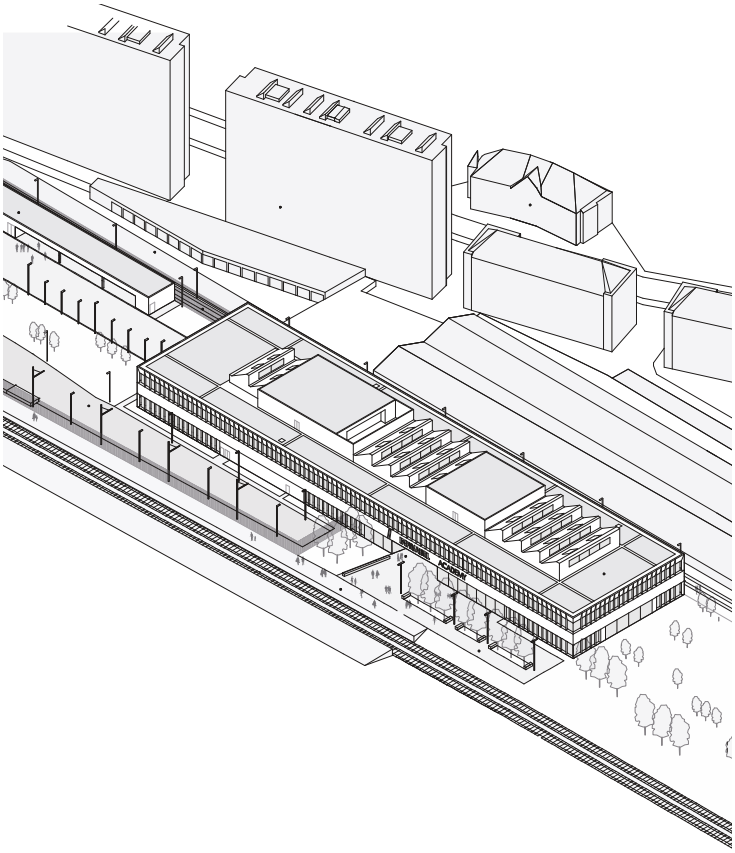
BOEREN BRUXSEL PAYSANS ©Architects

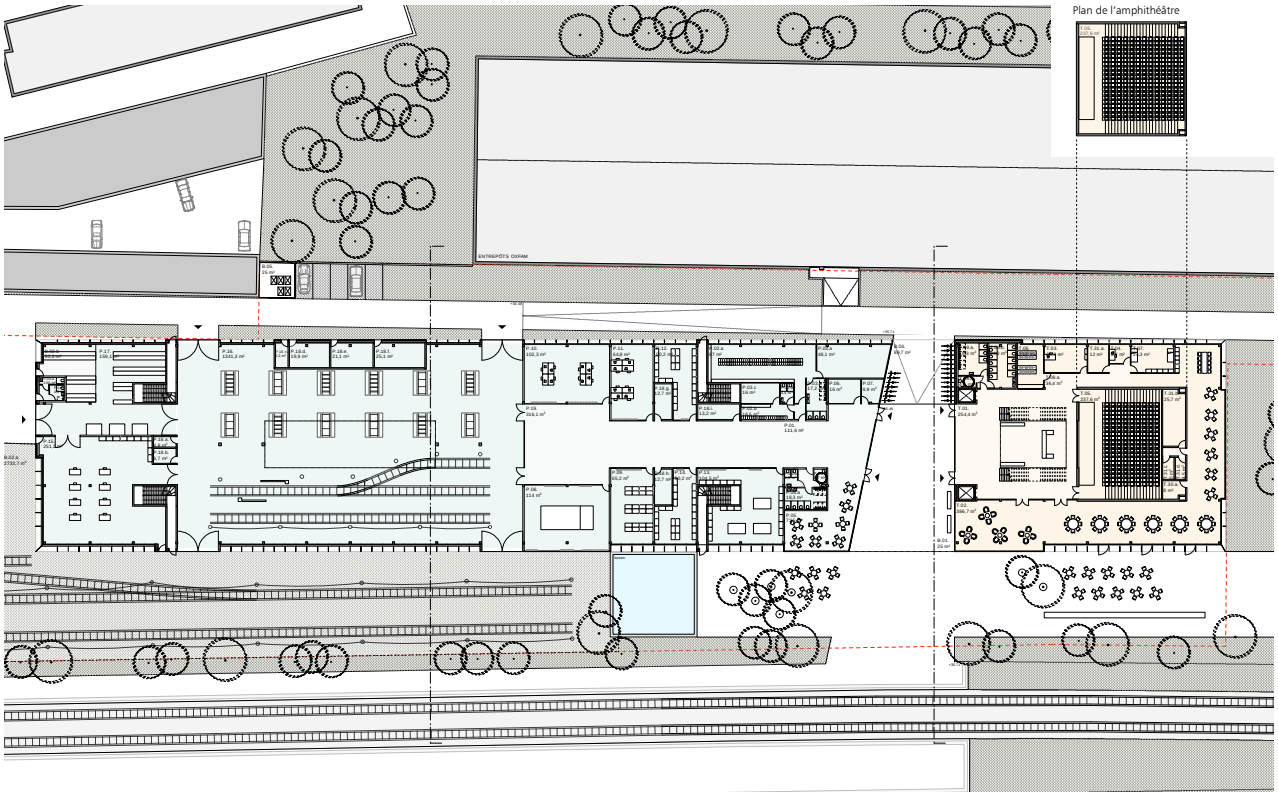



ACADEMY








Plan de l'amphithéâtre

INFRABEL ACADEMY

#LearningCentre #ProductiveCity #Densification #Expansion #DenseCity

Architects

Atelier Kempe Thill & Canevas

Client

Infrabel Tuc rail



The new school building will provide space for the professional training and education of specialists for various sorts of operational and maintenance works for the Belgian railway company.

There will be ateliers and outside spaces for all sorts of work on overhead lines, tracks and railroad switches and so on. There will be training spaces and simulators for the electrical and electronic controlling and the coordination system of the railway company.

Furthermore the new school building ambitions to be a place of exchange of knowledge related to the railways, parts will also be used as a conference centre.

The volumetric composition of the building was guided by its location above a metro tunnel or rather three tunnels merging into one north of the site. The building's longitudinal facades lie directly above the outer walls of the tunnel against the ground.

Due to the large span between these outer walls (more than 30 m), new columns have been added inside the tunnel between existing columns to transfer the load on the existing tunnel floor.
This choice required complex progressive collapse studies in the event of a subway derailment, as well as a design specifically adapted to intra-metro working conditions where intervention periods and space are strictly limited so as never to impede the good circulation of subways 24 h/24 h. The load-bearing capacities of the existing tunnel structures limited the height of the new building and influenced most of the architectural, structural and technical choices.

A great deal of integration and coordination work has been carried out in order to comply with the constraints imposed by the latest energy standards (PEB, ERP, etc.), taking into account the complex programming of the rooms and the large glass surfaces of the building.

11

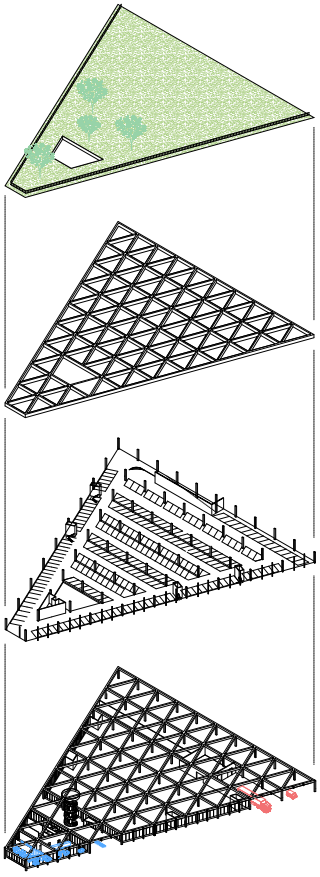
Site
Gare de l'Ouest
1080 Molenbeek-Saint-Jean
Weststation
1080 Sint-Jans-Molenbeek
50°51'04.0''N 4°19'19.0''E

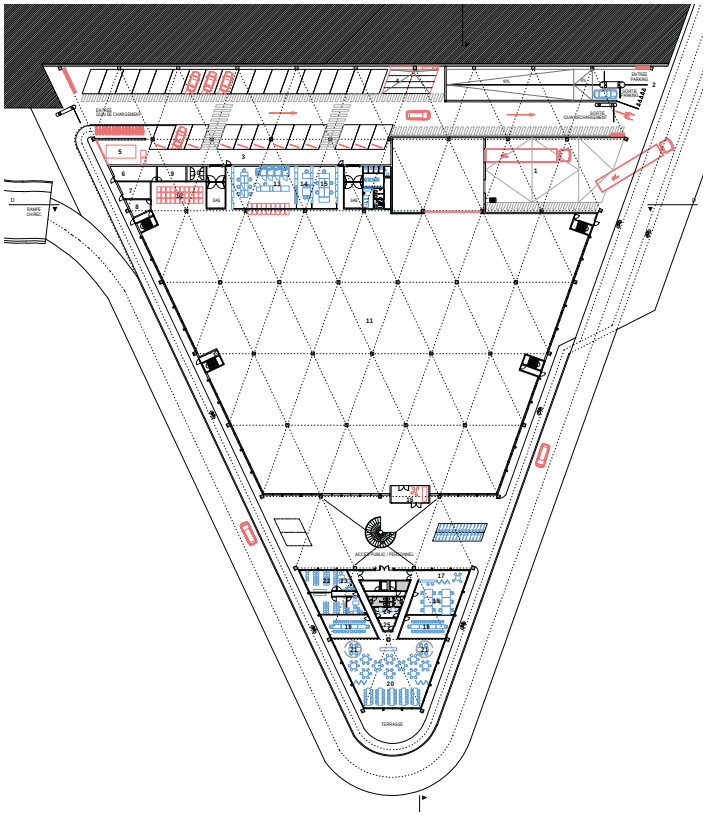
Area
6,000 m² Learning centre
3,000 m² Workshop

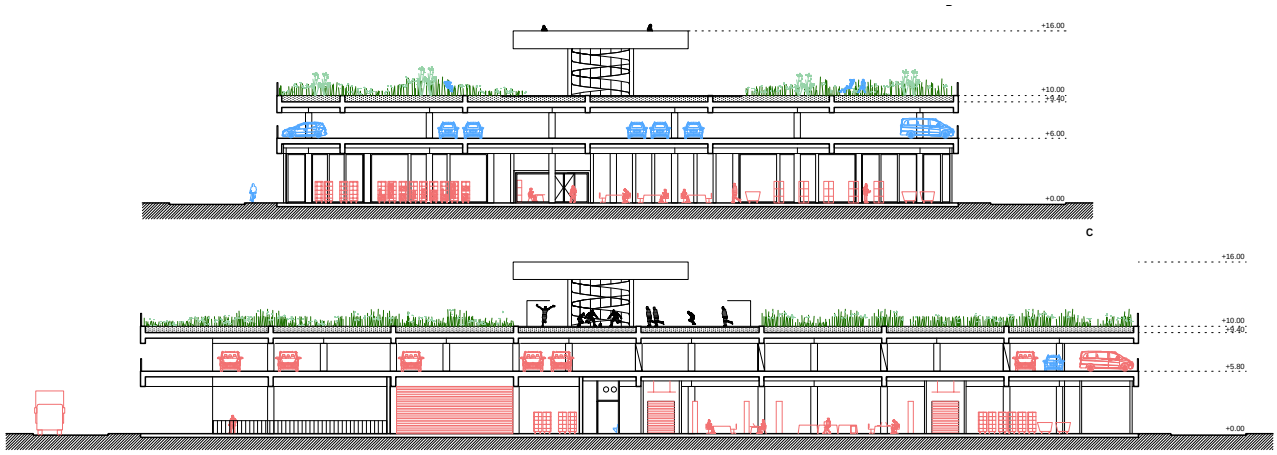
Status
Under Construction

Year
2016-2020

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Atelier Kempe Thill I Architects






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+10.00
+9.40
+6.00
+0.00
C
+16.00
+10.00
+9.40
+5.80
+0.00







BPOST DELTA

#Logistics #ProductiveCity #UrbanIntegration #Expansion #MicroZoning

Architects
URA + Tractebel

Client
bpost



Distribution centres are everywhere. Large, anonymous box-like structures are being put up all over the city which are uniformly focused on logistics and distribution.

However, the spectacular growth of the urban population creates a need for strategically placed distribution points closely linked with the city's core. These distribution points are by definition embedded in an urban network. The mono-functional character of the new centres clashes with the city's multi-functionality, making it necessary to carefully investigate the integration of such places in the city.

The structure directly reflects the economic reality: its triangular concrete structure, which minimises wasted space and features ambitious spans for maximum flexibility, is optimised for both current and future use.

The structure is indented in two places, and it is here that a concentration of light, activities and atmosphere is found. Both the hall and the workplaces have incoming natural light. The access to the landscaped roof is positioned at the interface between hall and office.

At the end of this roof is an action point – a vantage point. bpost employees, walkers and local residents can all enjoy the roof.

The building ties in closely with the simplicity and harshness of the surrounding area, and its design reflects the industrial nature of the site.
Its solid, sturdy character finds clear expression in the façade with its concrete structure. This is a façade with layering: both horizontally and vertically, it is a sequence of different layers, neat, refined and detailed.

12

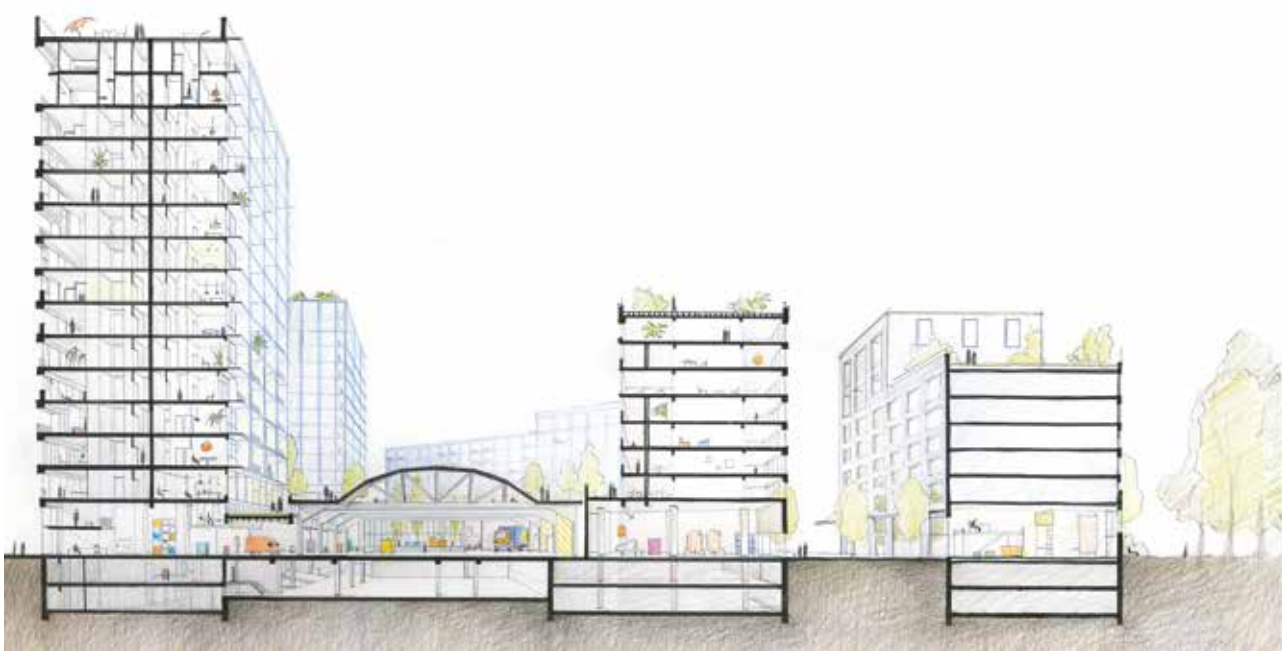
Site
"DELTA Triangle",1160 Auderghem
&1170 Watermael-Boitsfort
"DELTA driehoek", 1160 Audergem
& 1170 Watermaal-Bosvoorde
50°48'47.0''N 4°23'58.7''E

Area
3,970 m² Mail center
575 m² Offices
11,500 m² Parking
Green accessible rooftop

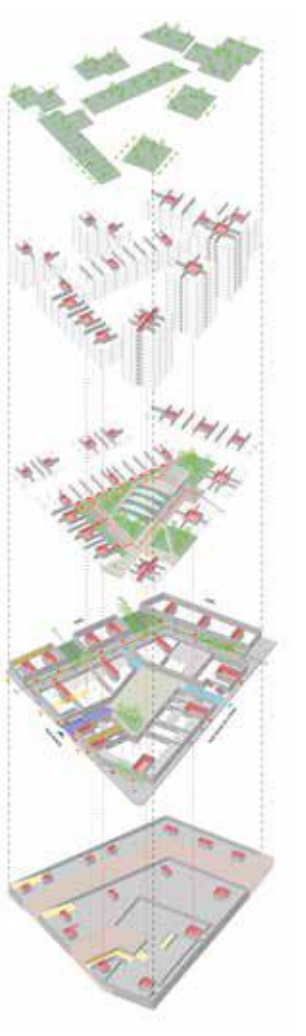
Status
Design Development

Year
2017 - Ongoing

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URA







URBANITIES

#VerticalMixedUse #BrownfieldRedevelopment
#DenseCity #ProductiveCity

Architects
B2Ai + MSA +
Plus office architects

Client
BW Promo



The "Urbanities" project is located in Biestebroeck, a large transformation area along the canal, where numerous large-scale projects will be established in the coming years.

This project has opted for a vertical superposition of the programmes of productive activities and housing. It represents a truly great asset in terms of the ambition of architectural quality.

The ground floor is dedicated to production. It forms a base from which the architectural form of the entire complex is developed as one single entity. The structural pattern of all of the buildings, the architectural language, the facades, etc., everything is based on the scheme of modularity of the production workshops. In total, the ground floor accommodates approximately 15,000 m² of surface area around a central covered courtyard where logistical flows are centralised and managed.
Firstly, these surfaces are to be used for production activities, but they can also be enhanced by wholesale programmes, logistics-related activities and public amenities. Therefore, the project offers large premises in order to complement the more regular offering of relatively small surfaces interwoven into the urban fabric.

13

Site
Digue du Canal - Rue de Dantes
1070 Anderlecht
Vaartdokl - Dantestraat
1070 Anderlecht
50°49'57.0''N 4°19'03.5''E

Area
62,500 m² Housing
15,000 m² Productive activity

Status
Design Development

Year
2017 - Ongoing

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MSA I Architects

"Urbanities" looks like a configuration of various collective housing buildings. Despite their architectural diversity, they share some elements of consistency and create coherence in terms of the real estate product. The different buildings have in common an architectural vision on typologies and a certain understanding of the living concept.
All the housing units, with the exception of the studios, are designed to feature a dual orientation, both transversal and corner apartments. This principle allows to develop compact and comfortable apartments that take full advantage of the view and sun exposure.

The project also optimises vertical superposition by turning it into an asset for the architectural quality of the programmes. It includes a transition and interweaving layer between the production levels and the housing units: the roof garden of the housing units opens to bring natural light into the workshops located underneath; the central skylight is positioned above the production level to become a feature of design and a communal garden games area, the common spaces shared by companies and housing units will stimulate mutual interactions.



URBANITIES ©Architects



IMAL

#ProductiveCity #Beton
#DigitalCultures&Technology

Architects
CENTRAL

Client
iMAL



IMAL, future CASTII, is a special feature of the Brussels landscape. More than just an art centre, it is relevant both in the culture it radiates and its urban location. It represents a culture of co-production, set in its time, which is build, acquired, and distributed. It is an accessible site, at the junction of two neighbourhoods, exuding a federating quality due to the diversity of its activities and a varied public.

Not only is it a venue for exhibitions, but the productive and inclusive purpose of the centre also makes it an active location that can be considered as a tool around which different audiences can come together and play an active part. It is a productive venue in the public arena, for the neighbourhood and for the city.

The CASTII is not only seen as an innovating destination, but also as a venue that is firmly anchored in its neighbourhood and actively participates in its development.

CASTII is designed as a public apparatus that outwardly displays its innovating activities. It is a site subject to constant bustle, where each part of its programme is specifically defined, but where priority is given to the relations these various functions maintain with one another. It is a venue that defines its identity by its functionality and its layout. In practical terms, this ambition is possible only through a strategic attitude towards the costing of the project.
The architectural quality of the existing location requires only a light intervention to reveal its real beauty. Therefore, it appears crucial to focus available means on specific entities of the project to guarantee the acoustic, technical and architectural performance that is required for a good synergy between the various constitutive elements of the CASTII.

14

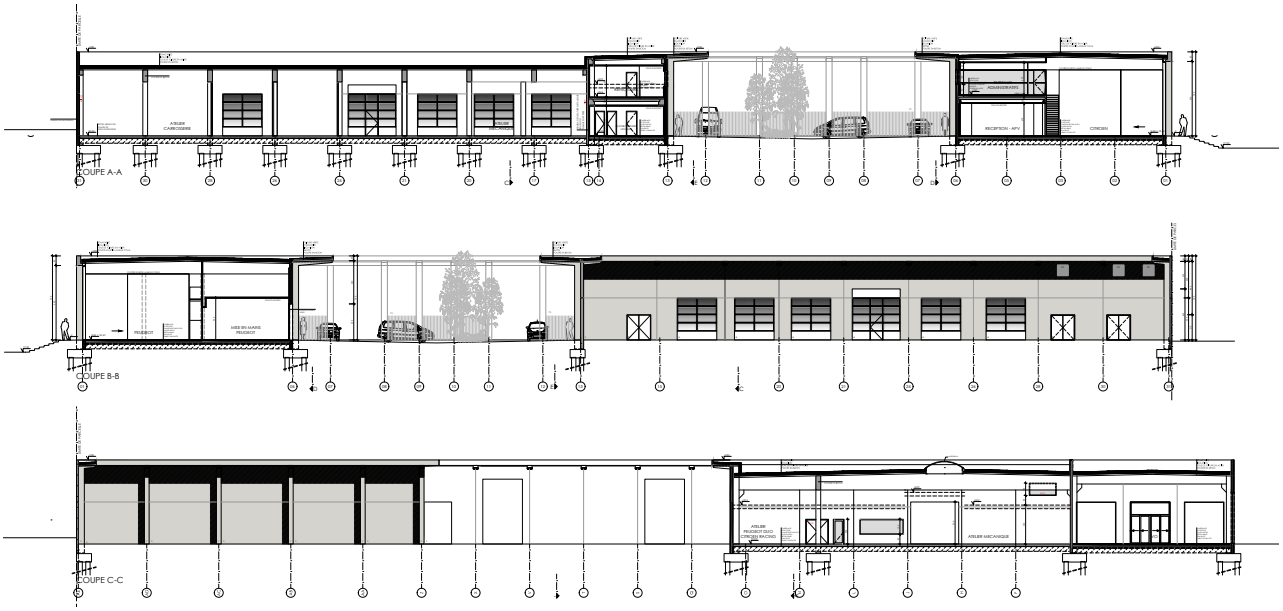
Site
Quai des Charbonnages 30
1080 Molenbeek-Saint-Jean
Koolmijnenkaai 30
1080 Sint-Jans-Molenbeek
50°51'17.1''N 4°20'31.5''E

Area
1,500 m²

Status
Under Construction

Year
2016-Ongoing

Copyrights text I illustrations
CENTRAL


COUPE A-A
COUPE B-B
COUPE C-C







PEUGEOT-CITROEN-DS

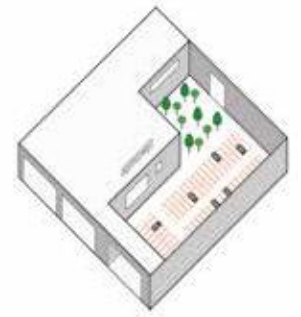
#MicroZoning #ProductiveCity #Relocation #Inclusion #DenseCity

Architects
AIDarchitecten

Client
PSA







15

Site
Avenue du Port 94-98
1000 Bruxelles
Havenlaan 94-98, 1000 Brussel
50°52'01.2''N 4°21'05.2''E

Area
2,000 m² Workshop
390 m² Logistics
825 m² Showroom

Status
Build

Year
2014-2017

Copyrights text I illustrations
AIDarchitecten I Architects,
Lucidlucid, Canal Plan team

In 2015, following the purchase of the historic Citroën garage located on Place de l'Yser by the Urban Development Corporation of the Brussels Capital region, the activities of Citroën have been moved to the new developing site of Tour & Taxis in a new integration project of Groupe PSA together with the Peugeot and DS brands.

The new building site is located along Avenue du Port, beyond the site of Tour & Taxis. The project is the first in the context of the new development of the TACT site, between the Tour & Taxis buildings and the TIR site.

The project has a pronounced urban design and high architectural quality. The facades are aligned with the neighbouring buildings and form 'street facades' by moving the facades close to the road front. A variation to the structure of columns marks the customer's entrance with an open passage which leads to an internal courtyard, ensuring that the cars can be parked out of sight from the street level. The guiding concept for the building is 'an enclosed outdoor showroom'.

The entire project is surrounded by walls that delimit the perimeter and confine all traffic and parked cars to the courtyards. The building has a solid tectonic expression which is materialized by a structure of concrete columns and beams on the public side, in which the single brand images are integrated, while on the technical and logistical side the architecture presents itself as more closed.

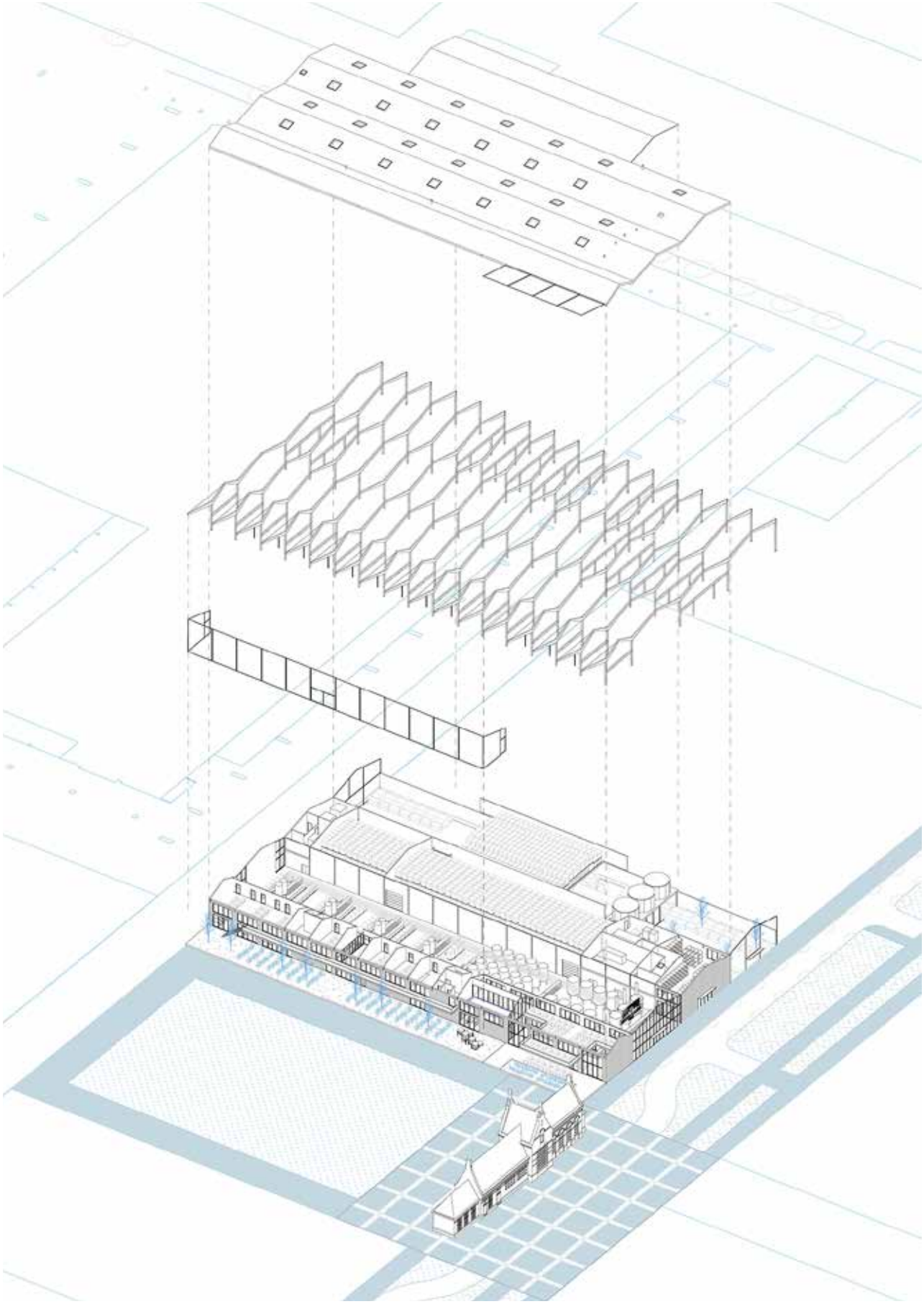
The complex was designed to ensure the maximum flexibility for the different brands it hosts. The attention to the architecture of the new building goes beyond Peugeot's standard requirements, as the proximity to the Tour &Taxis building required a different approach to the appearance.

Sustainability aspects were included in the design, such as rainwater recovery for the car-washing and toilets, green roofs, photovoltaic panels and a permeable car parking with green areas .



PEUGEOT-CITROEN-DS ©Architects


PEUGEOT OCCASIONS



BRASSERIE DE LA SENNE

#MicroZoning #ProductiveCity #Relocation #Inclusion #DenseCity

Architects
GÉNÉRALE

Client
Brasserie de la Senne



Designing from scratch a new facility for an already established factory is a rare occasion for the architects.

Four main types of use were extracted from the original program : production, storage, logistics and administration/public area. They laid the base for the principles of the architectural scheme, composed of four main halls placed along the length of the parcel.

The existing brewery was mostly self-build by the two co-founders of the company. An existing warehouse was customised with successive layers added on top of, next to or replacing one another.
It was obvious that such an approach to space was part of the spirit of the brewery, but also a necessity in any factory : to evolve and adapt according to changing needs, changing situations.

Combined with the rigorous four-halls-diagram, the architects designed a structural frame that would allow many adaptations while still keeping the identity of the building : a thick serial concrete beams & columns grid that can be easily opened or closed and that can also support an intermediary storey. In contrast, the roof is made of plain structural wood allowing beamless halls.

The will for an "opened brewery" to the town was also strongly supported by the municipality and region of Brussels. As a result, the production hall is widely visible from the street. Once inside, any visitor will be able to walk along the production tanks, following the chronological order of the brewing process.

The Tap House is the main gathering space for the visitors. With a direct view over the brew house and the fermentation tanks, it is also widely opened to the fifth hall : an outdoor vegetable garden inhabited by animals and equipped with a playground.

16

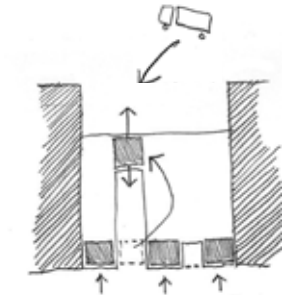
Site
Site du TACT
1000 Bruxelles
Site van de TACT
1000 Brussel
50°52'03.9''N 4°20'56.3''E

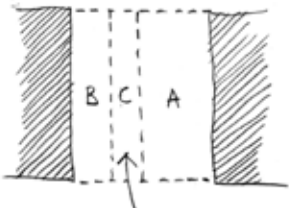
Area
4,000 m² Brewery
2,000 m² Open Space

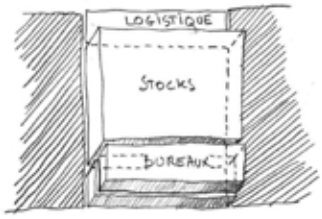
Status
Under Construction

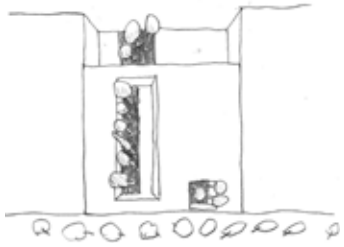
Year
2016-Ongoing

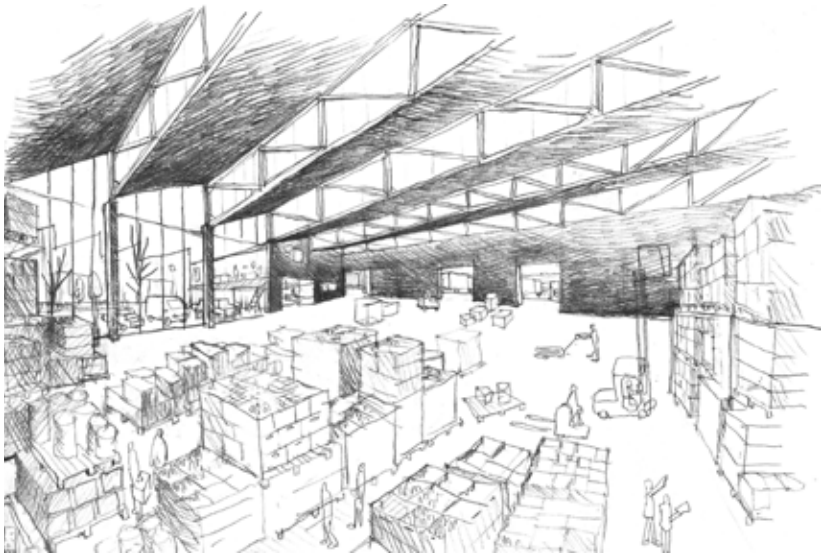
Copyrights text I illustrations
GÉNÉRALE



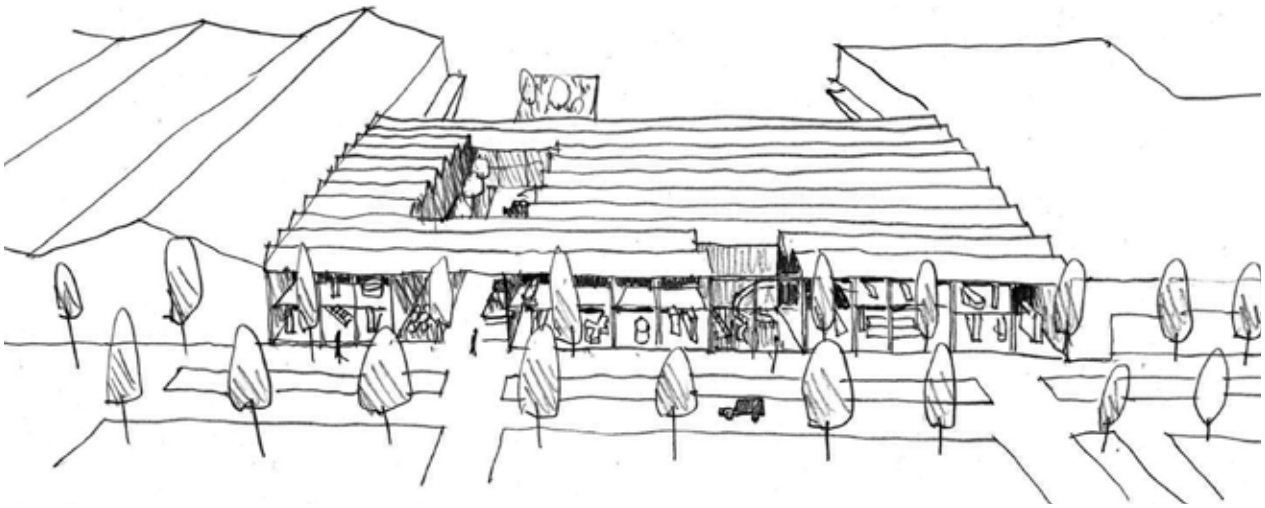

B
C
A


LOGISTIQUE
STOCKS
BUREAUX









VIZYON DRINKS

#MicroZoning #Logistics #Relocation #Inclusion #DenseCity

Architects

Pl.Rigaux architectes + Collectif horizontal

Client

Vizyon Drinks



The "TACT" parcels offer large volumes and, strategically, an ideal position. The contiguity with Tour &Taxis and the canal is also providing some desirable development perspectives for companies whose activities are expanding.

The urban block formed by Vizyon Drinks and its neighbours is creating a new kind of urban industrial shape. This project is especially carried by the Canal Plan ambitions asserting the role of logistics and production into a lively and mixed-use district along the waterway.
The front side of the block is accessible from the public space serving all the parcels neighbouring the TIR centre. The backside is secured, closed but accessible by a private road and reserved for logistic traffic.

Housed under a succession of pitched roofs, the building is spread into four parts: two warehouses and two courtyards. The 3,000 m² hall is dedicated to a beverage wholesaler.

17

Site
Site du TACT
1000 Bruxelles
Site van de TACT
1000 Brussel
50°52'03.9''N 4°20'56.3''E

Area
6,300 m² Logistics
1,500 m² Open Space

Status
Planning Permission

Year
2017-2019

Copyrights text I illustrations
Architects

Firstly, awaiting its economic expansion, the wholesaler will host one or many tenants (commercial or artisanal) in the other 1,500 m² hall. Visitors and tenants enter these volumes from the public space by a courtyard: the real heart of the project. It has a landscaped ground and parking lots for cars and bikes. The facades are also punctuated by sliding doors dimensioned for trucks. Office spaces are housed on galleries, above the production activities.

Finally, on the building backside, a covered loading dock links both warehouses. The backyard's surface at the bottom of the parcel enables the manoeuvring of the heavy trucks and transportation vehicles.

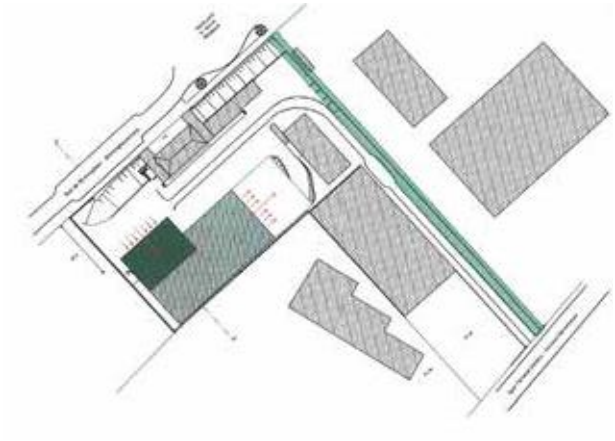
The construction system fits with the industrial standards: prefabricated metal sandwich panels and concrete components. However, the front and back facades are completely covered with corrugated sheet made of transparent polycarbonate. What matters here is bringing abundant light in to highlight and make visible these urban productive and logistic activities.

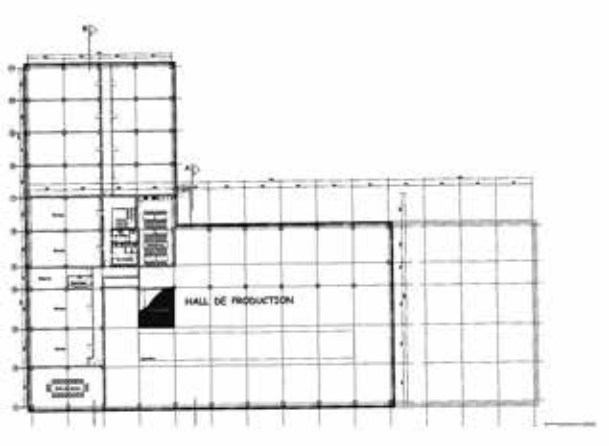


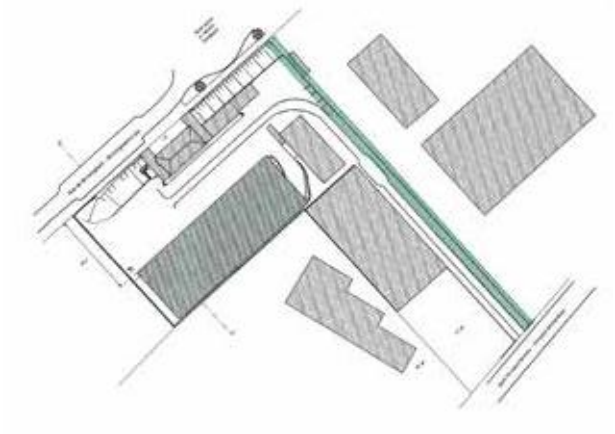
VIZYON DRINKS ©Architects



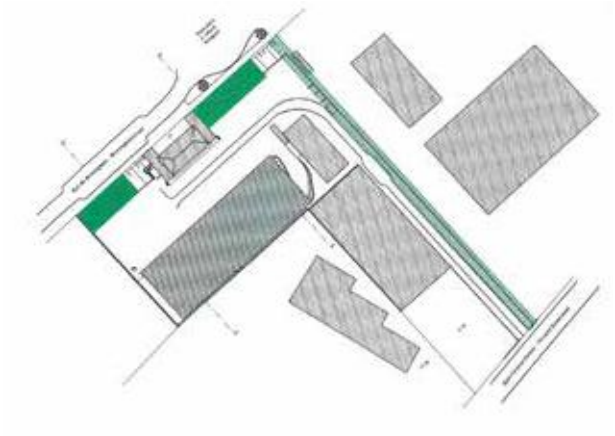
17 10 2017

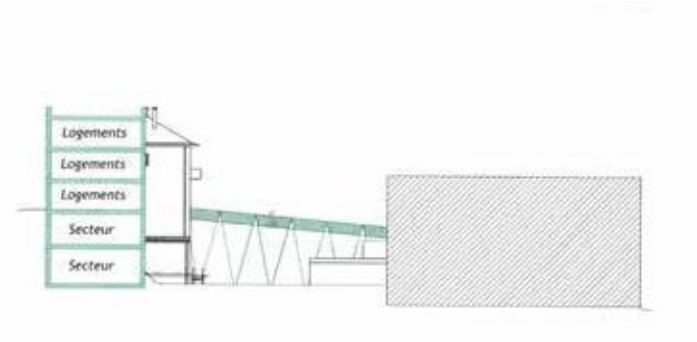



HALL DE PRODUCTION




HALL DE PRODUCTION




Logements
Logements
Logements
Secteur
Secteur

VIVAQUA

#HorizontalMixedUse #Relocation
#ProductiveCity #Logistics

Architects
VIVAQUA

Client
VIVAQUA



Vivaqua, the Brussels public water company plans to build a new plant for local production of plastic pipes for the renovation of the existing wastewater networks. While formerly imported from abroad, the production in Brussels of these plastic lining parts, will lead to the creation of forty jobs locally.

The project site is located in an Enterprise Zone in an Urban Environment . This new type of urban zoning was created in 2016 in order to stimulate the development and coexistence of production activities and housing facilities on former low-density industrial plots.

The project is located in the canal area, and so the development of the project was supported by the multidisciplinary Canal Team.

By means of research by design they engaged in a back-and-forth with Vivaqua over the following questions:

- Urban integration of production activities. By working, for example, on increasing the compactness of the new buildings, on improving the integration of stocks, and on managing logistical flows, but also on design research relating to the façades;
- Implantation and rationalisation of land use. This allows to vacate enough area and to take advantage of the existing slope in order to construct, during a second phase, housing units on the upper side of the plot. It generates functional diversity on the site and fully exploits the potential of this zone;
- Identification of operational solutions to create a public passerelle that both shelters the Vivaqua stock and provides a cyclist-pedestrian bridge connecting the street and the housing area at the higher end of the slope with the canal down in the valley.

18

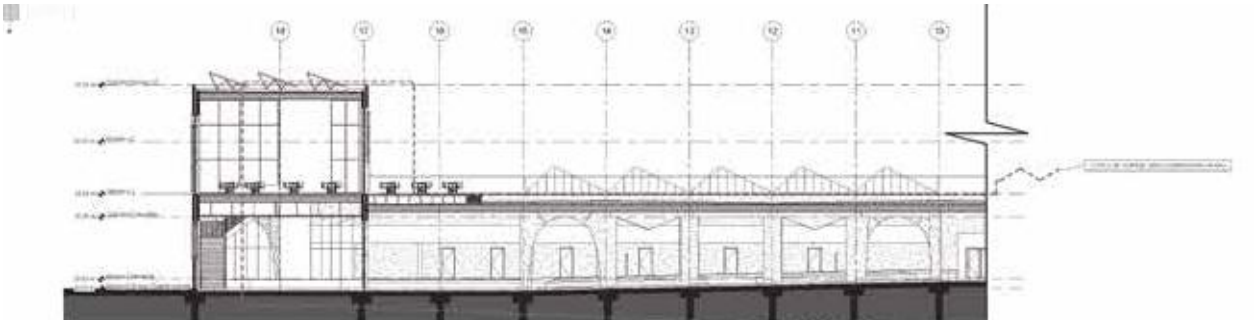
Site
Rue de Birmingham 120
1070 Anderlecht
Birminghamstraat 120
1070 Anderlecht
50°50'38.7''N 4°19'15.1''E

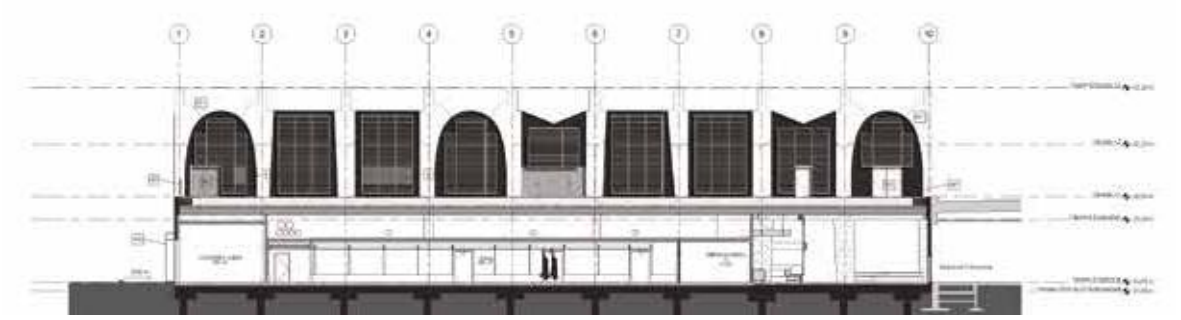
Area
6,000 m² Factory - phase I
1,500 m² Housing - Phase II
700 m² Logistics - Phase II
+ Footbridge

Status
Planning Permission

Year
2016-Ongoing

Copyrights text I illustrations
Canal Plan team I Vivaqua, Bruciel











FOODMET

#VerticalMixeduse #EDRF #ProductiveCity #UrbanIntegration

Architects
ORG

Client
ABATTOIR



The Foodmet is the first architectural step towards the realization of a masterplanwhich constitutes an urban and architectural scenario for the gradual conversion of an industrial slaughterhouse into a mixed urban environment. The Foodmet is a mixed-use market in the culturally diverse neighbourhood of Cureghem-Anderlecht in Brussels. The project includes meat industries, an indoor market, an urban farm, retail, parking, and housing.

The community is vibrant but lacks public services and economic opportunities. The slaughterhouse and open space offer a means of income and location for exchanging goods and services. The Foodmet aims to strengthen this local gathering point and structure more opportunities for well-being.

The project embodies the shared and at times conflicted interests of multiple stakeholders: from civic leaders to private developers and citizens. These stakeholders participated, informed and helped shape the design process, imagined development scenarios, and organized neighbourhood meetings in order to build strong consensus around shared goals.

19

Site
Abattoirs d'Anderlecht
1070 Anderlecht
Slachthuizen Van Anderlecht
1070 Anderlecht
50°50'31.4"N 4°19'42.6"E

Area
12,000 m² Covered Market

Status
Build

Year
2009-2015

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ORG I Filip Dujardin, ORG

The building has set the stage for future development in the area via its proportions and construction logic, and its positioning in the urban space has initiated the definition of new edges and public spaces in the larger master plan. As the first project of this urban vision, the Foodmet can become a symbol and an icon that communicates the current values and aspirations of the community.

The Foodmet is a building with a civic presence. However, the character of that civic presence is not predetermined by an architectural style or spatial configuration. The different floors can become almost anything: zoned programs, parking, logistics, a public plaza, farming, residential, etc. The project consists of dozens of interconnected and flexible spaces, made possible by the deployment of a variety of repeatable concrete wall panels. The Foodmet is a contemporary urban warehouse – a building with a clear urban form, but no mandatory content.



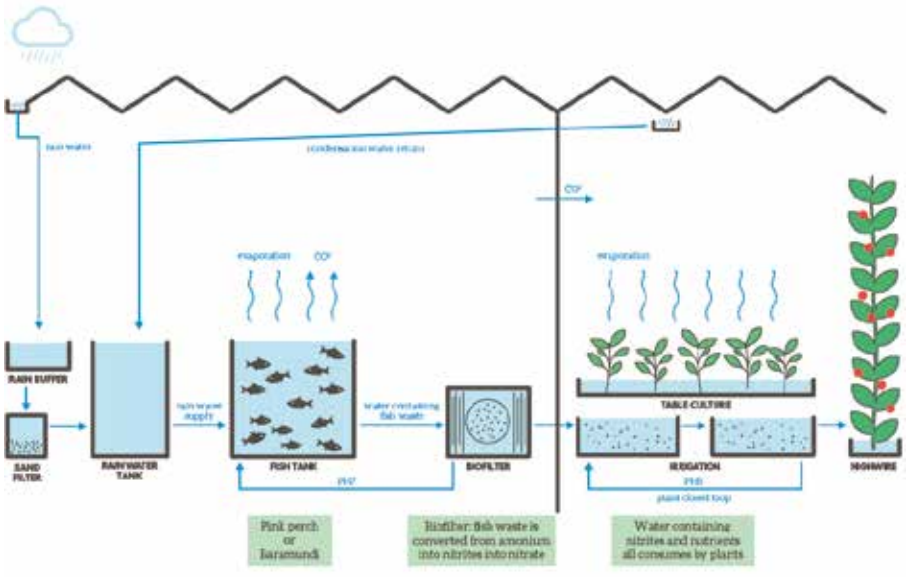
FOODMET ©Filip Dujardin










RAIN BUFFER
SAND FILTER
RAINWATER TANK
evaporation
CO²
FISH TANK
BIOFILTER
TABLE CULTURE
IRRIGATION
HIGHWIRE
Pink perch or Jaramundi
Biofilter: fish waste is converted from amonium into nitrites into nitrate
Water containing nitrites and nutrients all consumes by plants

BIGH FARM

#VerticalMixeduse #UrbanFarming
#ProductiveCity #CircularCity

Architects
ORG

Client
Building Integrated GreenHouse



"Our goal is to prove that quality urban agriculture can be profitable in many ways. We give existing buildings extra circular economy functions such as a sustainable urban farm and stimulate diversity in cities.", says BIGH (Building Integrated GreenHouses).
More people are living in urban areas and the need for fresh and safe food is growing every day. Highly productive, integrated urban farming systems are an opportunity to fulfil this need in a sustainable, innovative and effective way.

BIGH creates sustainable aquaponic urban farms in urban and suburban areas offering space, wasted heat, water and labour linked to a potential market for local fresh products. BIGH, produces fish, fruit, vegetables and herbs in a closed and zero waste cycle.
Aquaponics combines the raising of fish with the cultivation of plants that extract their natural nutrients contained in water. The closed water system, relies in the biofilter allowing fish to provide nutrients for the plants once biologically transformed, thus prohibiting use of antibiotics, pesticides or harmful chemicals that would damage this highly controlled but totally natural ecosystem.

BIGH integrates farms with buildings and uses the energy loss (Cold rooms, cooling of buildings and industrial processes) to reduce their impact on the environment.

BIGH follows the circular economy principles, making use of healthy up-cyclable C2C materials and consuming hundreds of times less water, harvesting rainwater and ground water, using photovoltaic electricity, reducing heat island effect and producing natural fertilizers, capturing of CO2, while also creating local employment and social economy support.

The rooftop farm "Ferme Abattoir" runs on Brussels' food hall Foodmet 4,000 m² rooftop. The short chain will be completely visible, when the vegetables and fish that are grown here are being distributed to local shops and create the first part of a regional farm network capable of helping circular food production to emerge with many partners in the future.

20

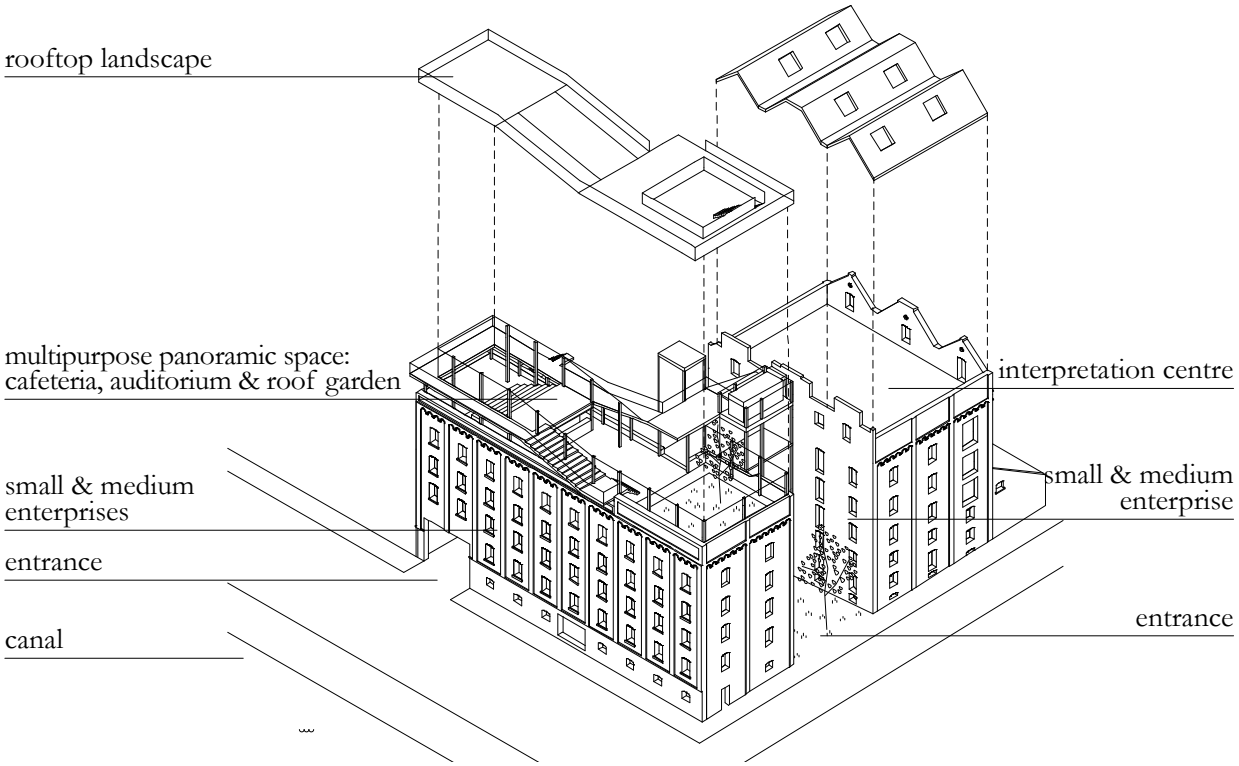
Site
Abattoirs d'Anderlecht
1070 Anderlecht
Slachthuizen Van Anderlecht
1070 Anderlecht
50°50'31.4''N 4°19'42.6''E

Area
1,800 m² Fish Farm
2,000 m² Greenhouse
& outdoor garden

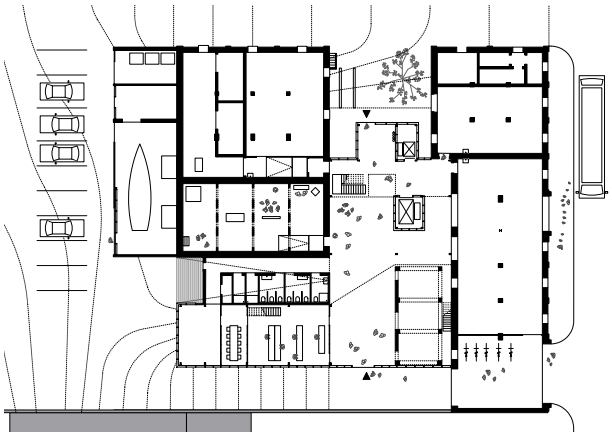
Status
Build

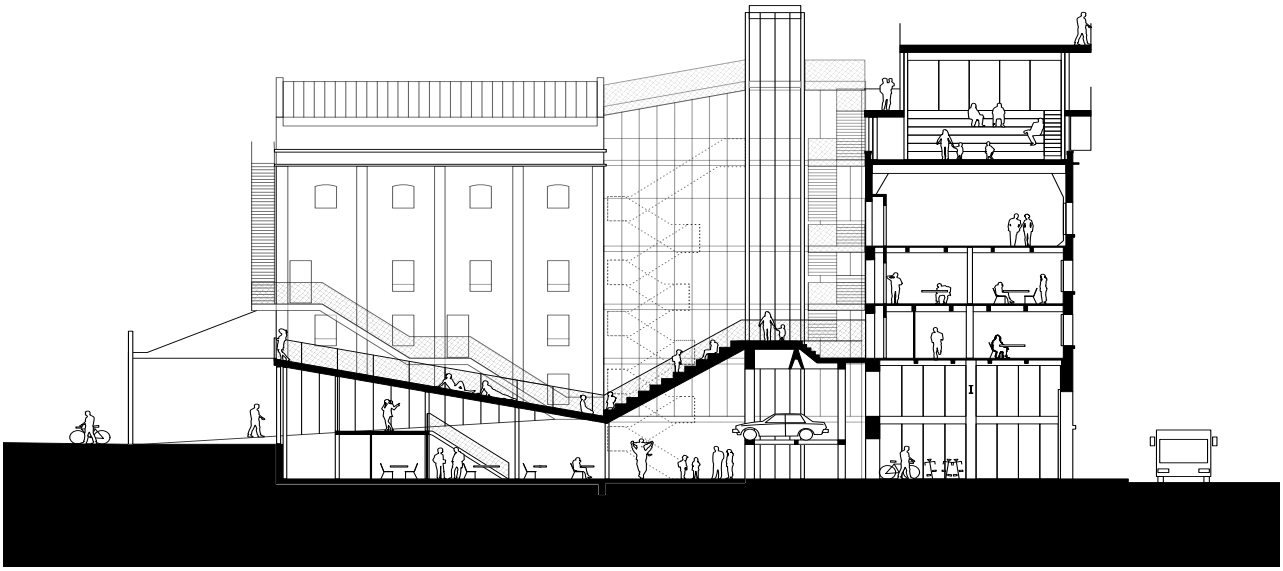
Year
2017-2018

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Steven Beckers


rooftop landscape
multipurpose panoramic space:
cafeteria, auditorium & roof garden
small & medium
enterprises
entrance
canal
interpretation centre
small & medium
enterprise
entrance







COOP

#ProductiveCity #Heritage #ERDF #Incubator #UrbanIntegration

Architects
Bogdan & Van Broeck

Client
Anderlecht Moulart



The conversion of this former mill at the canal in Anderlecht combines a space for small- and medium-sized companies with an "interpretation centre" on the history of the site.

The restoration approach includes environmental recycling and a vision of cultural sustainable development.

The industrial heritage is highlighted through various concepts. The components of the programme are considered as on-going projects that are subject to constant interactions rather than fixed spaces. The notion of time rather than of space is the defining quality of the architecture. Flexibility and adaptability become crucial features.

The project interacts at local and supra-local levels and has a low accessibility threshold for the neighbourhood and the city. The two existing buildings are listed, with their walls having been laid bare, and are used as large and versatile containers. Between these two spaces, the service facilities - stairways, lifts, technical ducts, etc., are inserted in the form of light architecture.

On the ground floor, landscaped spaces along with reception and administrative areas open the project to its urban context. The entrance hall is a hall of fame, where past, present and future visitors are invited to discover its history.

The panoramic space that overlooks the projects includes a restaurant, a garden and terraces. It works as a lighthouse on the banks of the canal, and as an anchoring point creating a bridge towards the rest of the city.
The building is the embodiment of the interpretation centre programme: the building speaks of the city as the city speaks of the building.

21

Site
Quai Fernand Demets 23
1070 Anderlecht
Fernand Demetskaai 23
1070 Anderlecht
50°50'22.8"N 4°19'08.1"E

Area
5,100 m² incubator for small and medium entreprise & Interpretation center

Status
Build

Year
2011-2016

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Bogdan & Van Broeck



COOP ©Architects



BRUSSELS BEER PROJECT [COMPETITION]

#Expansion #UrbanIntegration #ProductiveCity #BrownfieldRedevelopment



New things are happening on the left bank of the Biestebroeck basin: the brewery Brussels Beer Project is planning on moving its facilities to this booming neighbourhood to develop a 21st century brewery, creative and open, with an output of 50,000 hectolitres the equivalent of fifteen million bottles.

A daring brewery, turned towards the future; a brewery with a distinctive style, set to bring Brussels and its brewing scene into the 21st century; a brewery that epitomises the shining new identity of the "Port Sud" neighbourhood as a bustling epicentre; but also a brewery that showcases the visual identity of Brussels Beer Project.

One of the challenge is to create a connection with the public, for instance by creating a visual opening showing the brewhouse and main tanks but also by allowing a dedicated space for visitors.
The site count a beautiful beer garden of more than 900 m² as well as a potential rooftop.

It is also a technical challenge to integrate a production cycle spread over several floors, and to strictly comply with the standards governing the food industry, juggling with logistical constraints while taking into account the highly polluted state of the land.

The site has an area of 876 m² buildable for the brewery + 100 m² of loading/ unloading + 924 m² of green zone for a beer garden. The construction can reach 15 m high according to the PPAS. The land is rented as a public concession from the Port of Brussels.

In July 2018 four teams have been selected to make a project proposal and the winner will be announced before the end of 2018.

- A229 + Stabili.D + ZEUGMA
- TETRA Architecten + MOUTON + BOYDENS
- OFFICE KGDVS + UTIL + BOYDENS
- DHOOGE & MEGANCK + MOUTON + BOYDENS + ONBETAALBAAR

Architects
To be determined

Client
Brussels Beer Project

22

Site
Quai de Biestebroeck 23
1070 Anderlecht
Biestebroekkaai 23
1070 Anderlecht
50°50'06.1"N 4°19'02.2"E

Area
1800 m² Brewery
900 m² Beergarden

Status
Competition

Year
2018-2020

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Canal Plan team I Séverin Malaud

SUEZ
[COMPETITION]

#UrbanIntegration #Logistics #ProductiveCity #Expansion

Architects
To be determined

Client
SUEZ Facilities Center



Suez is a group active in the management of water and waste. Its mission is to support its customers (public customers, companies and individuals) to create new resources from waste and thereby save natural resources. Its activities aim to offer circular, concrete and collaborative solutions.

Strategically located at the front end of the port, the private company Suez, which specialises in waste sorting, is planning on bolstering its presence and activities in Brussels. Having been awarded a contract with the Port, it can now extend its operating rights to a neighbouring plot of land.

It is a major project that perfectly reflects the ambitions to maintain and develop production activities in the canal area. The activities undertaken by Suez are now literally crammed within the limits of its site. A reorganisation of its current facilities, which will be extended, is therefore required.

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The mission is to optimise the use of space, by separating operational and logistic activities.

Furthermore, the project also relates to the layout of the new plot and to the construction of an indoor parking lot, where places for private vehicles and utility vehicles are set to coexist.
The project owner is also insisting on the importance of storage areas to cater for on-site activities and for third parties.

Site
Chaussée de Vilvorde 218
1120 Bruxelles
Vilvoordsesteenweg 218
1120 Brussel
50°54'39.1"N 4°24'41.8"E

Area
11,500 m² Productive Activity
15,000 m² Logistics
4,000 m² Open Space

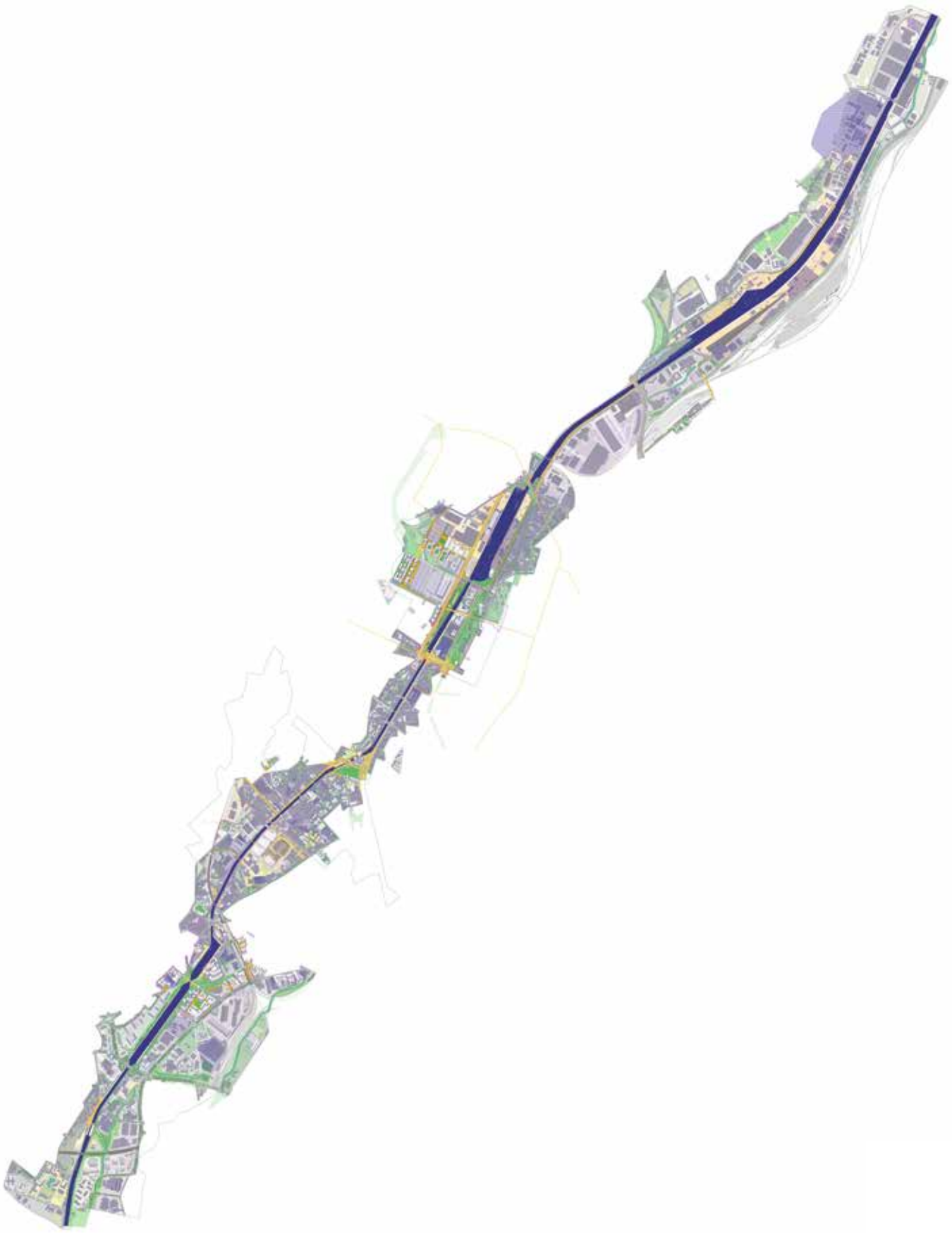
Status
Competition

Year
2018-2020

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Canal Plan team I Séverin malaud

In April 2018 four teams have been selected to make a project proposal and the winner will be announced before the end of 2018.

- BC ARCHITECTS & STUDIES TOGETHER WITH TRACTEBEL ENGIE
- TRANS, WITTEVEEN+BOS, MICCONSULT, ATTELIERGRAS, OMGEVINGEN
- CENTRAL, GREISCH, PLANT EN HOUTGOED, LIEVEN DE BOECK
- PL. RIGAUX, HORIZONTAL, ARCADIS



BUILDING THE PRODUCTIVE CITY

BIESTEBROECK, SUPERIMPOSED DIVERSITY Vs VERGOTE, KEEP YOUR DISTANCE

Julie Collet & Géraldine Lacasse

Our goal is to face reality and demonstrate in practical terms that it is possible to create a productive city, and to inject the philosophy and ambitions of the Canal Plan into real projects.
To achieve its goal, the Brussels-Capital Region has created a dedicated multidisciplinary team, set to be active for the next ten years: the Canal Team.

The team works is transversally organized and is composed of project leaders from several regional bodies: the urban development corporation (SAU-MSI), the building permits department (urban.brussels), the planning agency (perspective.brussels) and architects doing research by design working under the direct supervision of the Bouwmeester Maître Architecte.
It is an innovating structure within the Brussels administration as it combines various skillsets, and synergises them in a single Canal Team undertaking cross-cutting work.

Since 2015, this team lends its support to various public and private developers who are keen to secure a foothold in the canal area, from the initial phases of the project until its full completion.

The goals are clearly-defined:

- to keep economic activity in the city, and to bring people's workplaces and homes closer together;
- to create housing that meets the needs associated with population growth and affordability for all household profiles;
- to create pleasant, unifying public spaces, promoting the canal axis, the reopening of the Senne and canal crossings as links between neighbourhoods.

Achieving these objectives involves:

- creating and promoting functional mix by working on urban forms and programmes to ensure compatibility of functions;
- rationalising land occupancy and looking for ways to use it intensively;
- using public spaces as the basis for shaping the city.

The process relies on discussions, often complex in nature, with the stakeholders. Research by design, a tool at the heart of these negotiations, is working in that direction.

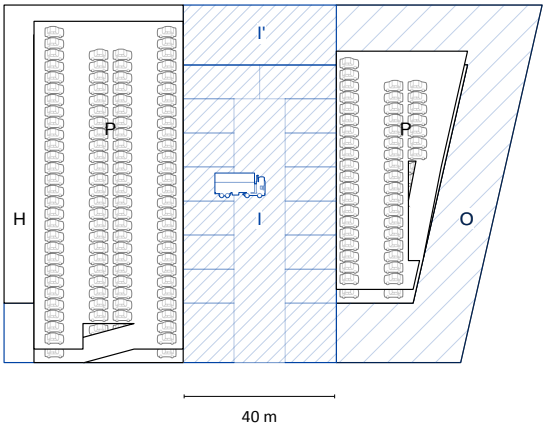
Research by design.

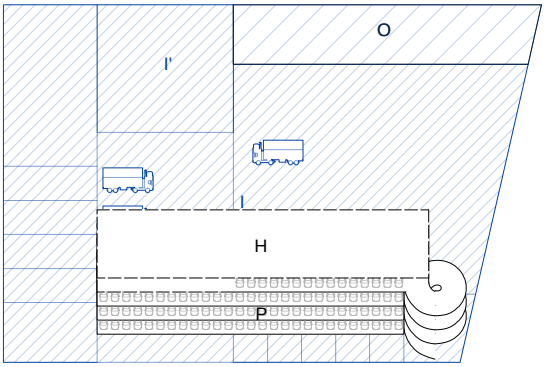
Besides the primary aspects of the Canal Plan, such as urban densification, social and functional mixity and urban inclusion, we also work on the spatial quality itself of the projects.

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We are convinced that a shared vision between public authorities and private stakeholders is the most efficient way of reaching this quality. However, sharing a vision means that we first need to create it, and therefore we use the method of research by design to do so.
We think the discussion on quality should not be hold mainly by means of

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words, texts or excel sheets, but design as a tool should play an important role in feeding the debates. We assess, we test and we confront different scenarios within transversal workshops to reach, together, a shared view. In this way, the research by design team supports the public authorities in constructing a vision, based on diverse scenarios for each project.

During workshops, we never start from a blank page. On the contrary we always rely on the existing project, its given implantation and/or volume. It is not about re-inventing everything and opposing each other, but rather about working together on a satisfactory project for each actor involved.

Since 2016, the team has accompanied nearly 150 projects and is developing a prospective approache for some areas in the canal area.

BIESTEBROECK, SUPERIMPOSED DIVERSITY

The issue of the plinth

Biestebroeck is one of the three Enterprise Zones in an Urban Environment (ZEMU) areas along the canal and is one of the first test-sites to have been developed as part of the Canal Plan. This former industrial area located on the right bank of the canal was in large part disused and is now being transformed for housing.

The ambition is to take advantage of this tabula rasa to create a mixed neighbourhood, including productive activities. However, a major problem has to be overcome: the soil is polluted.
Developers, who are required to follow a ratio of one parking place/housing unit, are keen to limit the depth of the excavations they need to conduct. It is therefore their preference to use the plinth nearly entirely for parking facilities and productive activities. The tendency is to organize the mixity in a vertical way, by locating all housing units on top of these plinths, without much interaction with the street level of public space.

Starting from a large industrial site, the urban transformation must preserve the large-scale. It must allow activities that no longer have space in the city, to blend in with the urban fabric and remain there. It is often the case that the productive plinths are in fact too much partitioned to be able to accommodate productive activities. We think on the contrary that the project must provide significant surface areas rather than small spaces that are easy to find in the current urban fabric.

As an example, in an existing project for which the plot features a surface area of 14,000 m² and was, initially, in large part constructed, the largest ground floor unit now has a surface area of 1,800 m². Furthermore, this project is offering facilities for a brewery of 300 m², but the actual demand is for a surface area of 4,000 m².

Too many developers tend to provide space exclusively for the size of very small enterprises. However, some projects are taking the risk of developing ground floors that are able to accommodate a larger scale of productive activities. In another project, we were successful in convincing the developer to combine two future urban blocks into a single one in order to create a ground floor with enough space to house a central manoeuvring zone and with dimensions that are realistic with respect to the demands of medium-sized enterprises. The urban fabric must be extended in some places.

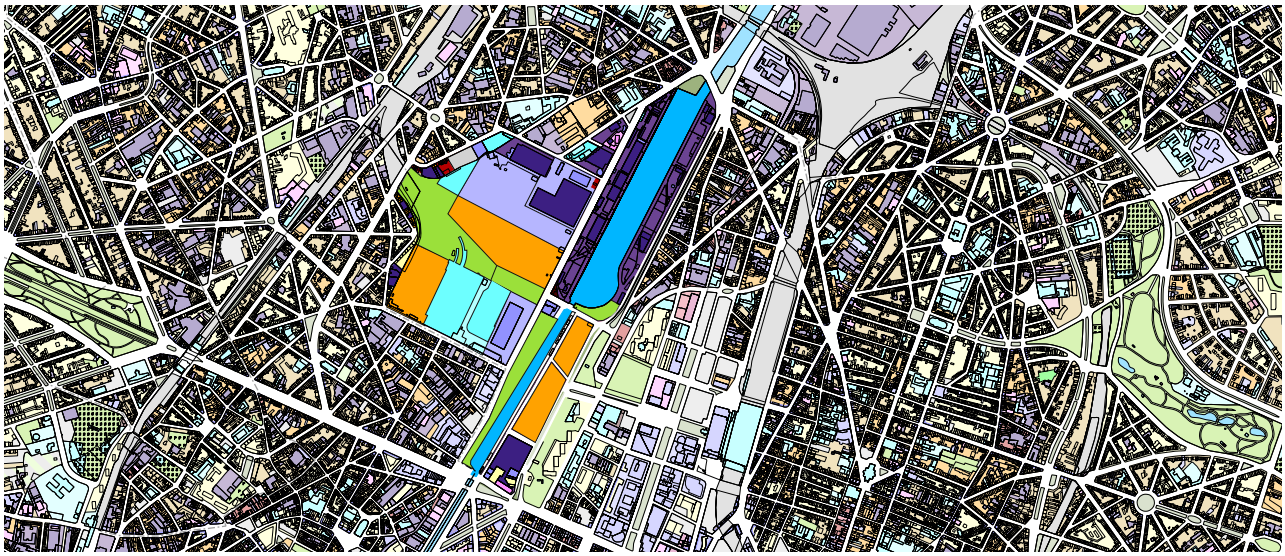
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VERTICAL MIXED USE ©Canal Plan team







VERGOTE, KEEP YOUR DISTANCE
Micro-zoning

At the intersection where the avenue du Port meets with the place des Armateurs, a new part of the city is being build. This area is an example of what we call micro-zoning or horizontal mix. It articulates three monofunctional entities and installs them in close proximity to one another, by juxtaposition: Zone D of Tour&Taxis, TACT and Inter-Beton.

The Zone D in the industrial heritage site Tour et Taxis covers an area of 3.5 ha. It will be the site for a dense ensemble of residential towers.

TACT is a site of 2.5 ha which is owned by the Brussels Port Authority. The land use is defined as Zone For Port Activities and Logistics (ZAPT) and therefore housing is not allowed. The site is divided into leased plots that will soon host several new businesses, mostly production and logistics.
For almost every plot an architectural competition has been organized, while initially the general idea of the companies was to do nothing else than to apply the peripheral model of a box surrounded by a parking lot. A generic and replicable model, as they are used to. However, our ambition is to "urbanize" this model, not by adding decorative panels, but by using an urban vocabulary, with terms such as adjoining buildings, façade alignment, integration of parking places and signs, and also by organising competitions with economic stakeholders. It is a tailor-made zoning for the city.

Inter-Beton is a concrete plant by the Vergote basin and has started working on reorganising its functioning in view of better urban integration, in order to maintain its activities in this evolving environment. An architectural competition was hold and as a consequence we hope now to be able to introduce functional mix by adding a youth centre for concerts and parties on the site, a noisy programme but perfectly compatible with its productive activities.

Much like Schopenhauer's hedgehogs, micro-zoning enables functions to cohabit as they depend on one another, but they cannot be superimposed, and often need some distance to protect themselves from the nuisance they can cause to one another.

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CREDITS

Cover
Séverin Malaud

Photography
port.brussels
Filip Dujardin
Renaud Callebaut
Lucidlucid
AID architecten
Générale
BIGH Farm
Séverin Malaud

Text
Kristiaan Borret
BC architects
TETRA architecten
Architectesassoc.
ORG
Bogdan & Van Broeck
Atelier 229
51N4E
Atelier Kempe Thill
URA
MSA
CENTRAL
AIDarchitecten
GÉNÉRALE
Pl.Rigaux architectes
Steven Beckers
Julie Collet
Géraldine Lacasse

Edited by

Bouwmeester Maître Architecte
Perspective I bureau bruxellois de la planification
59, rue de Namur
B-1000 Bruxelles

+32 2 435 43 80
bma@perspective.brussels
www.bma.brussels

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BOUWMEESTERMAITREARCHITECTE