

BRUSSELS  
UNIVERSITY  
DISTRICT AND  
THE SOLBOSCH  
CAMPUS-II

UNIVERSITY AND THE CITY: ULB SOLBOSCH CAMPUS AND SUSTAINABLE  
(RE)DEVELOPMENT OF THE BRUSSELS UNIVERSITY DISTRICT (BUD).

SUSTAINABLE URBAN DESIGN STUDIO, MA-1  
BRUFACE - ULB + VUB - 2021/2022

SUDS-I PROJECT 2021-22

# UNIVERSITY AND THE CITY: ULB SOLBOSCH CAMPUS AND SUSTAINABLE (RE)DEVELOPMENT OF THE BRUSSELS UNIVERSITY DISTRICT (BUD)

TEACHING TEAM:

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HERA VAN SANDE & PIETER DE WALSCHE (VUB)

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# INTRODUCTION

CHALLENGES AND GUIDELINES

The project for this year's Sustainable Design Studio (SDS) is focused on the theme of "Universities of/in the Future" with the objective of sustainable redevelopment of the University District in Brussels. During the 1st Semester, students work in groups to develop a sustainable urban design framework in the form of a master plan and program on the Campus of Solbosch, in Ixelles. Students work individually in the 2nd semester on a building or cluster within their master plan to develop an architectural project.

The aim of the SDS is to develop a VISION of a University of the Future and a master plan / urban design framework that provides response to transitioning the existing campus area towards:

1. A CO<sub>2</sub>-NEUTRAL district?
2. A GREEN-PARK with high quality PUBLIC SPACE district?
3. A completely CAR-FREE, pedestrian / soft mobility district?
4. A built-up density of +/- 1,5 FAR: questioning the program of learning-hub (services/culture), (student) housing, economic activities/offices/work and public spaces.
5. Innovative ways of maximizing the permeable surfaces, such as NBS (Natural-Based Solutions/Landscape infrastructure) that connect with the larger landscape network.

#### MAIN URBAN CHALLENGES:

1. The identity of the Brussels University District (BUD)
  2. The good layouts of functions and spaces (program, buildings, open spaces, uses) for a University of the Future (UOF).
  3. Sustainability challenge of the university for the next 100 years. Studying the metabolism of the University District and more specifically of the Solbosch Campus, to design, build and maintain CO<sub>2</sub>-NEUTRAL, GREEN, and CAR-FREE district that enhances the environment and wellbeing through the circulation of resources (energy, water, food, materials, etc.) and designing out waste.
  4. The challenge of Covid-19: how to envision a campus that can easily adapt.
- Rethinking densities, organizing (public) space for open-air activities and more inclusive social services and cultural life.

#### QUESTION TO TACKLE:

- **University of the Future (UOF):** What can be the university of the future? The learning of the future? The classroom of the future? (analyze the challenges unfolded by the visualization of education during the pandemic and rethink LEARNING, KNOWLEDGE and the role of the UNIVERSITY).
- **UNIVERSITY-CITY:** What is the role of a University Campus in nowadays cities? The campus as 'infrastructure'? What is the relationship we would like to see (let us say in 2050 and 2100) of our campus and the surrounding neighborhood / city?
- **UNIVERSITY-DISTRICT:** How to structure a University District? (ULB+VUB+USQUARE)  
What are the challenges in connecting the two campuses (Solbosch and Plein; and the two universities, ULB+VUB) to form a university district in Brussels / a pole of higher education / knowledge economy in Brussels capital region?
- **NATURE-CITY:** Urban Nature and university relation? The relation of the campus with the biggest urban / metropolitan park (Ter Kameren Bos / Bois de la Cambre)?  
What is the role of open space? Green Space?
- **DENSITY:** How to densify, how and where? Can we valorize the existing instead of demolishing and building new?
- **PUBLIC SPACE-MOBILITY:** a Car-free (a complete transition to soft mobility?) in and around the campus? Thinking about fluxes (mobility) and public spaces: how they allow formality/informality. What space can constitute a contemporary interpretation of the 'large infrastructure' making the large structure for formality (working as 'container' of smaller-scale spontaneity)?

# SITE ANALYSIS AND HISTORY

THE BRUSSELS UNIVERSITY NEIGHBORHOOD (EXTRACTS FROM DAY 1 PRESENTATION)





Study Area:  
Brussels University District

U-Square Site  
4,5 Ha

La Pleine Site (Campus VUB and ULB)  
48 Ha

Design perimeter (Masterplan):  
the ULB Solbosch Campus  
16 Ha





The ULB Solbosch Campus (source: Solbosch Plan Guide LOUISE, La Cambre, 2016)

1920-50



1953-58



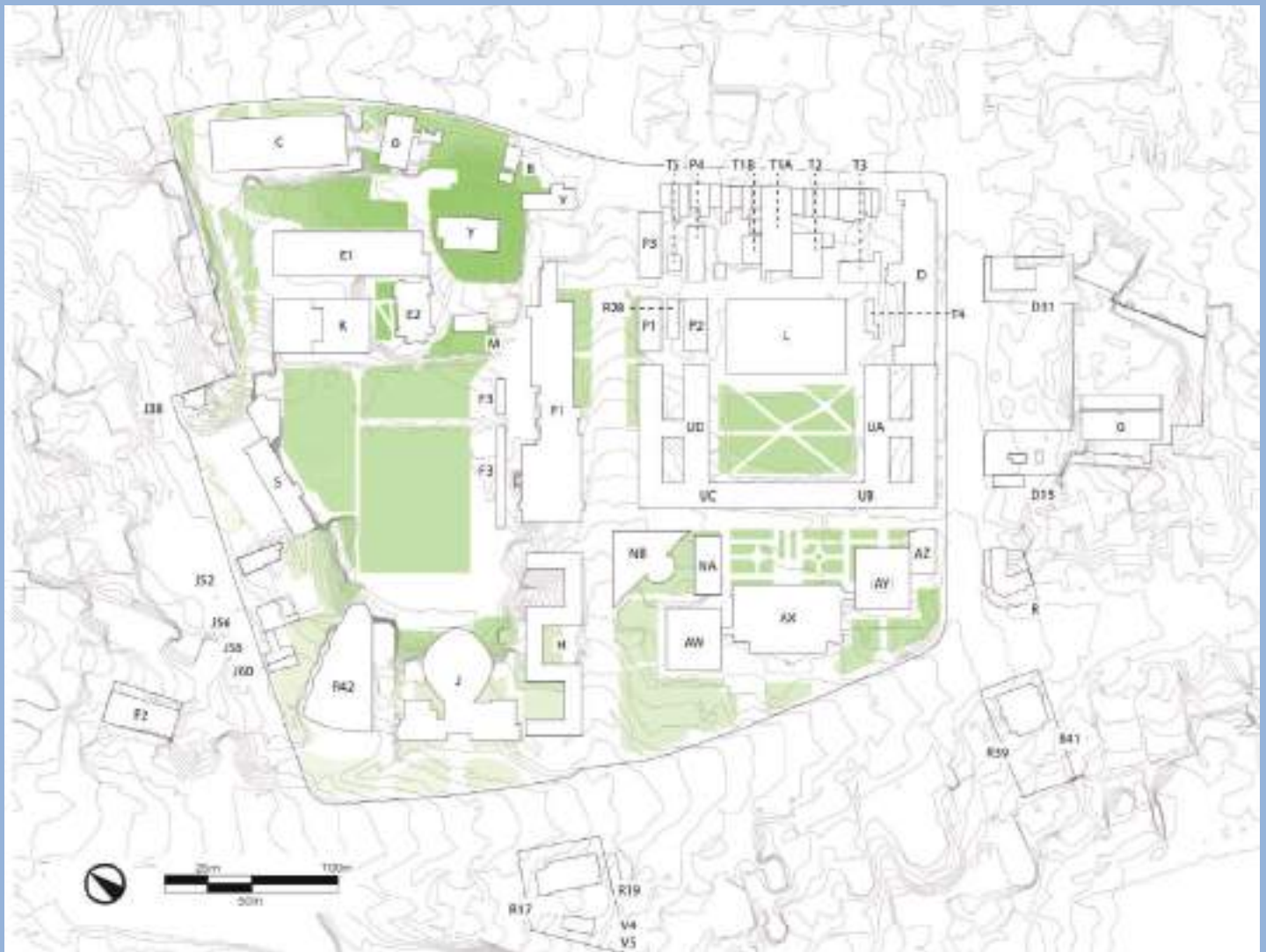
1965-71



1992-2016



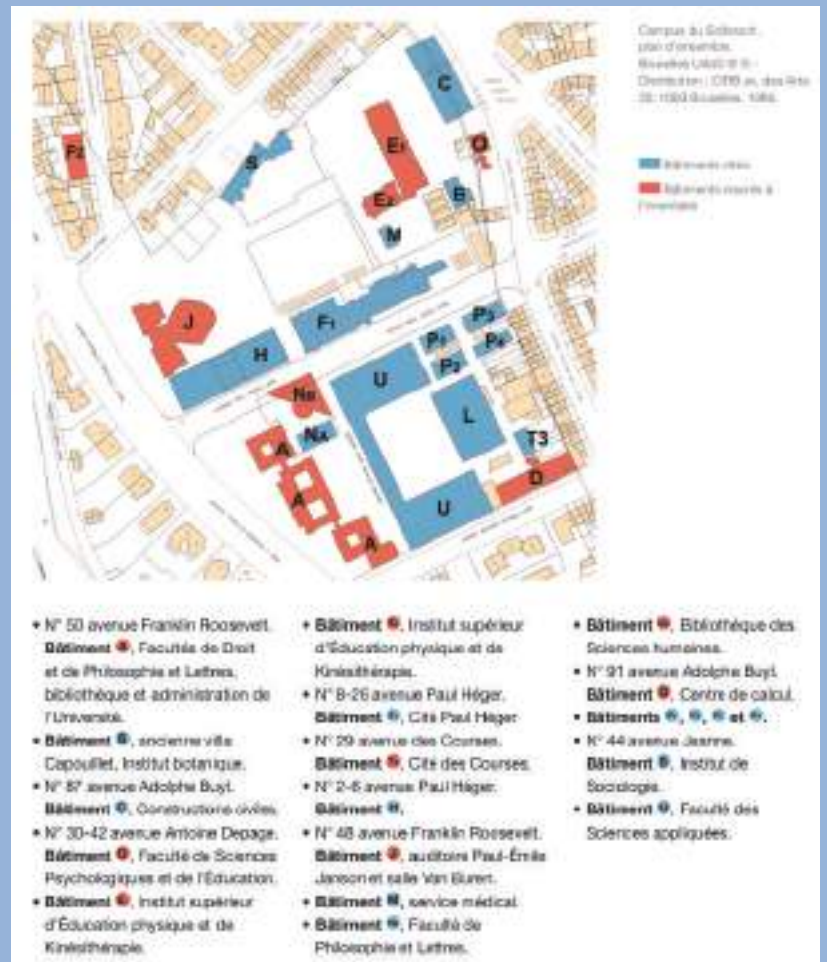
Historical evolutions: a gradual saturation with functions made the open space structure the result of leftovers unbuilt spaces. (source: Solbosch Plan Guide LOUISE, La Cambre, 2016)



The ULB Solbosch Campus (source: Solbosch Plan Guide LOUISE, La Cambre, 2016)

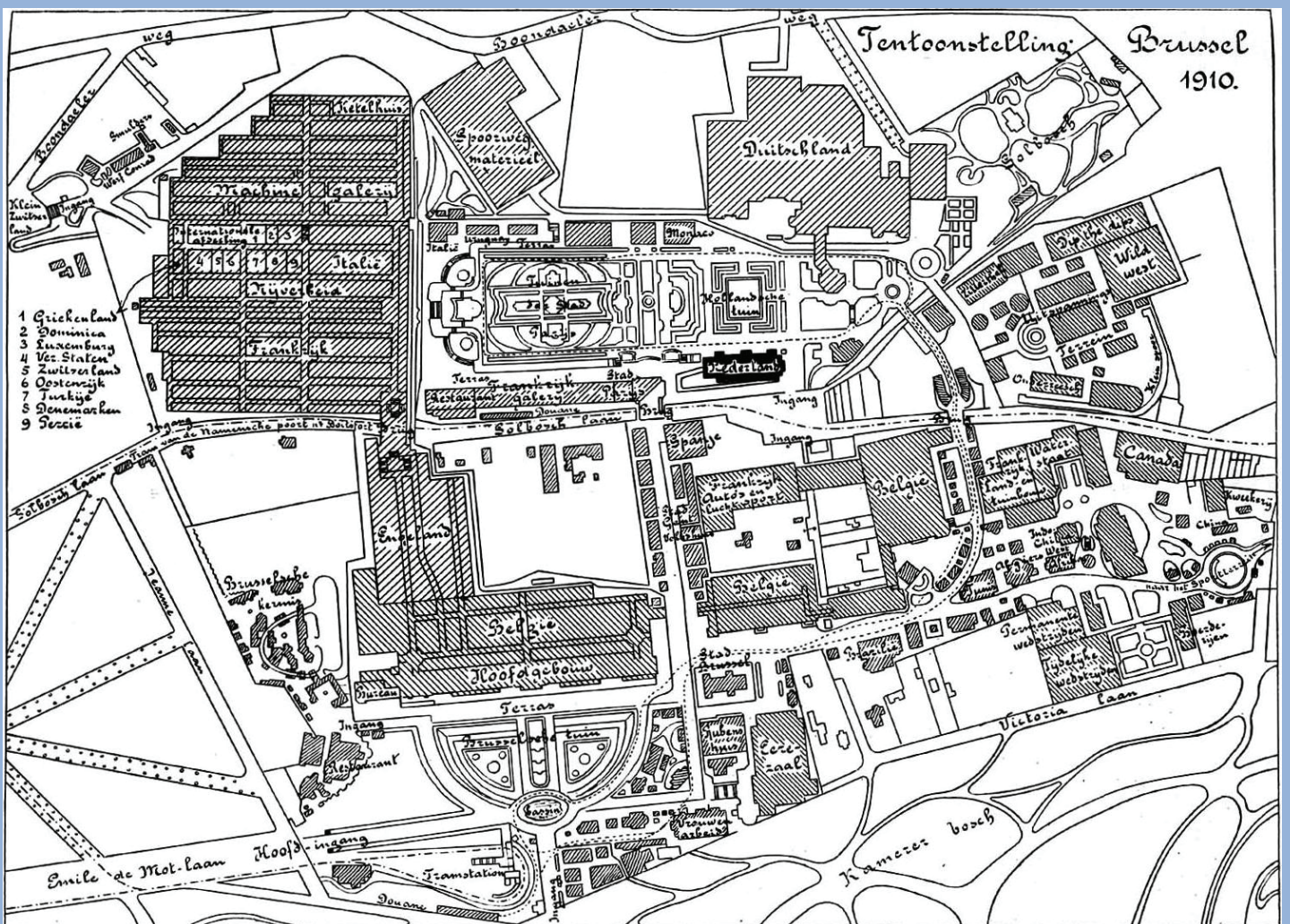
In red, building listed in the Regional Inventory of relevant historical architecture heritage

(source: <https://monument.heritage.brussels/fr/streets/9003>)





The forest of "Solbosch", Ferraris map, 1777 (source: <https://fr.wikipedia.org/wiki/Solbosch>)

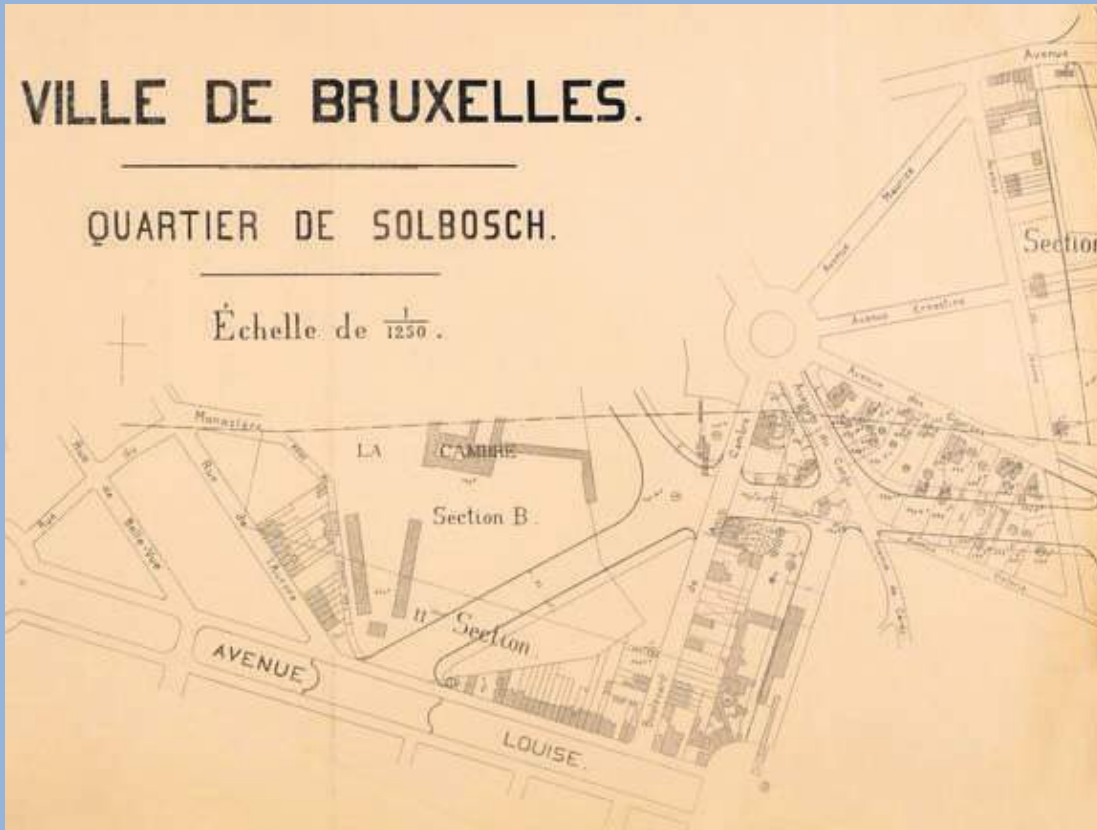


Solbosch world expo 1910 (source: <http://liservertulb.ac.be/tabledutemps/periode4-T1-1937.php?titre=0&desc=1&icones=1&vents=0&pos=1>)

# VILLE DE BRUXELLES.

## QUARTIER DE SOLBOSCH.

Échelle de  $\frac{1}{1250}$ .



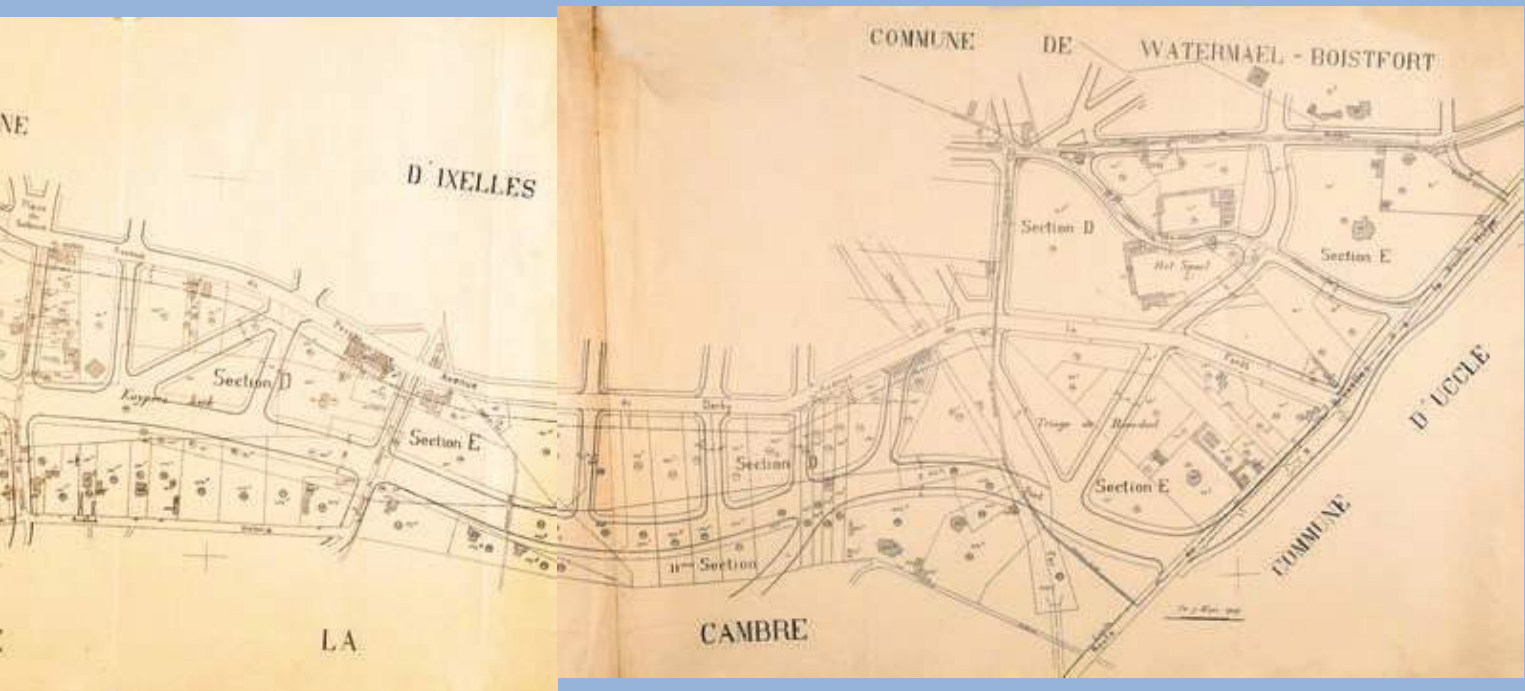
Urbanization of the area after the Expo 1910:

The exhibition served as a pretext for the implementation of a development plan for a new district. It provided the opportunity for Brussels to annex the land in Ixelles necessary for the construction of the Avenue des Nations (future Avenue Franklin Roosevelt), the backbone of the future district. In 1907, Ixelles ceded a 62-hectare strip of land to Brussels.

The construction of the exhibition was equivalent to the construction of a large urban district in record time. Its operation promoted the future urbanisation of this part of the city.

Source:  
<http://lisaserver.ulb.ac.be/tabledute-mps/periode4-T1-1937.php?titre=0&-desc=1&icones=1&vents=0&pos=1>

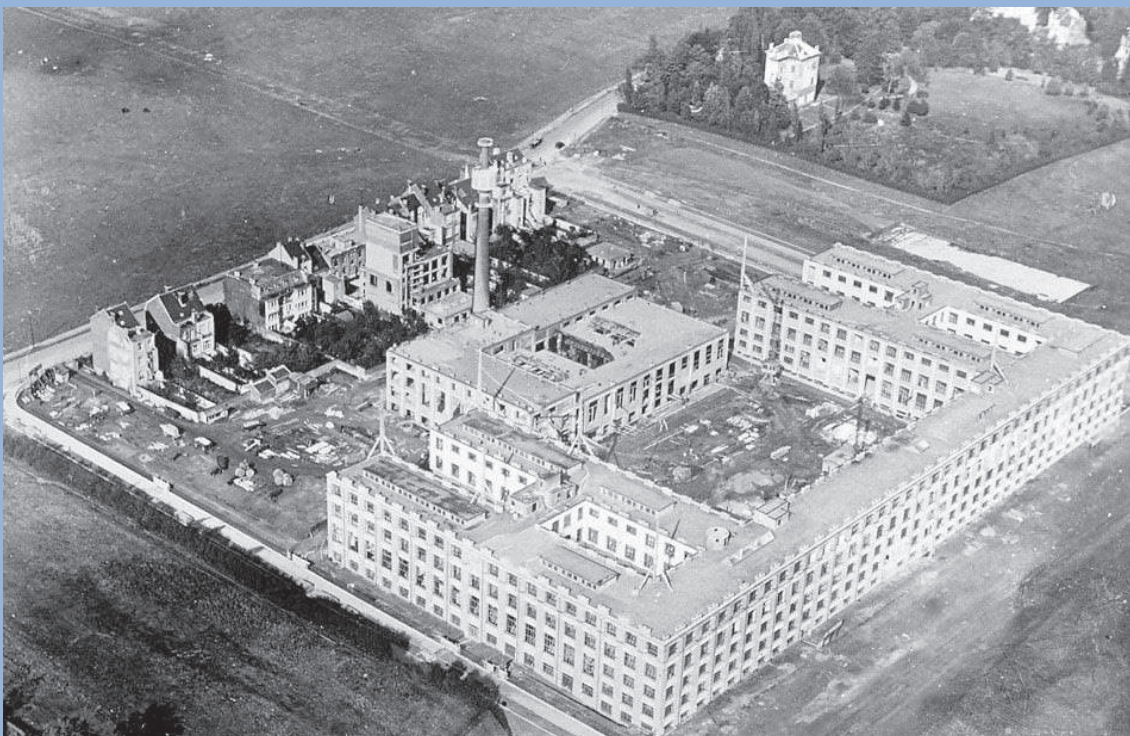
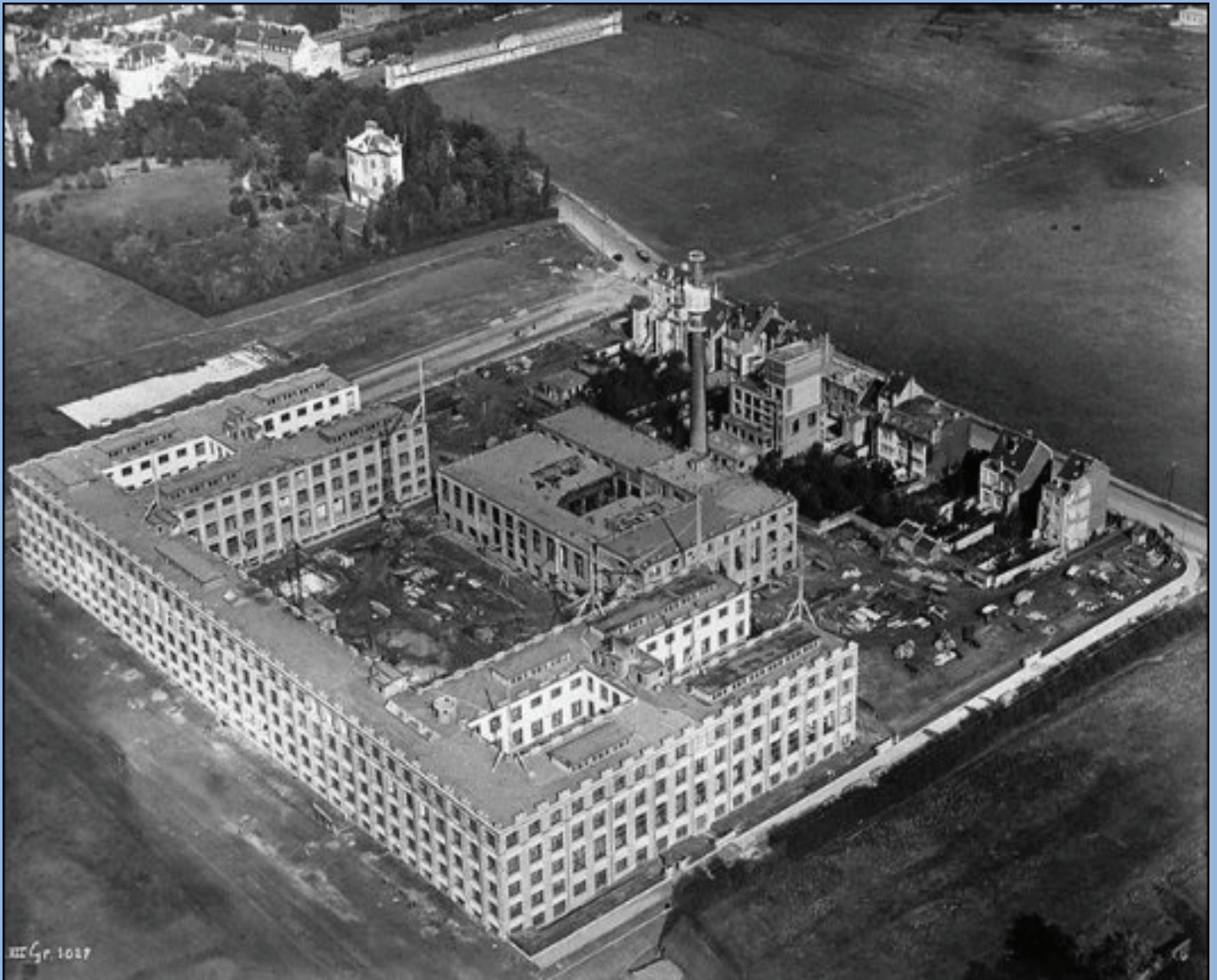




Solbosch world expo 1910 (source: <http://lissaserver.ulb.ac.be/tabledutemps/periode4-T1-1937.php?titre=0&desc=1&icones=1&vents=0&pos=1>)

1922–24, the first buildings of the Solbosch Campus:

In the 1920s, the Free University of Brussels began to establish its main campus here, which became known as the 'Solbosch campus', covering an area of 12 hectares. Historic Evolution of the Solbosch Campus of the Free University of Brussels (ULB). Building U, building L and Villa Capouillet (source: <http://lisaserver.ulb.ac.be/tabledutemps/periode4-T1-1937.php?titre=0&desc=1&icones=1&vents=0&pos=1>)



Built on an industrial model designed in 1922 by the engineer Eugène François a professor at the University, building shocked some of its contemporaries.



Université de Bruxelles

**Vue d'Ensemble** prise du haut de la tour de l'Université. Ce bâtiment groupe la Faculté des Sciences, l'Ecole de Pharmacie et la Faculté des Sciences appliquées (Ecole Polytechnique).  
A l'avant-plan on aperçoit le chantier des bâtiments en construction de la Bibliothèque générale et de l'Administration, de la Faculté de Philosophie et Lettres et de la Faculté de Droit.



The specifications for the design of the building A two years later are particularly explicit about the need to hide the ugly U-building, U building, whose ugliness was now unanimously acknowledged. The faculties of Law, Philosophy, Arts and Letters, as well as the library and administration of the building were to be grouped together. Building A was built with American funds, like some of the buildings at the University of Leuven. In return for full funding, the Americans demanded absolute compliance with certain conditions, the most astonishing of which is undoubtedly (for 1924) the inspiration from a "national style" for the for the facades. Submitted to five architects, the project was won by Alexis DUMONT, who who succeeded in combining functionality with a baroque remake.

Following this first success, Dumont became the University's architect for ten years, designing two more outstanding buildings, albeit in completely different styles. On the one hand, he designed the part of the current building facing Franklin Roosevelt Avenue in 1928 (the present building J) in 1928, where the architect again drew on the national architectural heritage while stylising it.

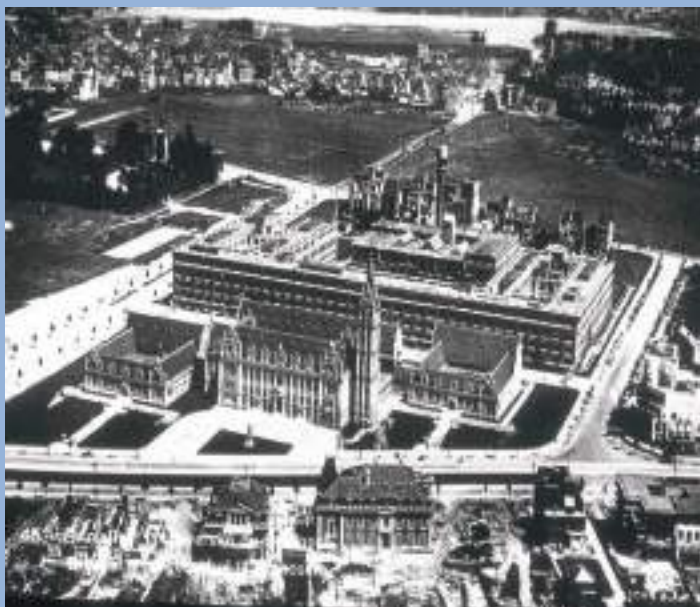


La façade principale de la nouvelle Université au Solbosch, du côté du bois de la Cambre.



1924-28, a new elevation towards the boulevard:

Construction of Building A, by Alexis Dumont in the "Flemish neo-renaissance style / remake baroque"  
(source: <http://lisaserver.ulb.ac.be/tabledutemps/periode4-T1-1937.php?titre=0&desc=1&icones=1&vents=0&pos=1>)





In 1931, Dumont began work on the design of the Cité Paul Héger (now building F1), which, through renovations and the addition of annexes had lost much of its initial plastic strength. Putting into modernist principles and forms, the subtly asymmetrical city stretched like an ocean liner along Avenue Paul Héger. It was initially intended to house 52 rooms for female students, 108 for male students and a 150-seat restaurant.



1931, Cité Paul Héger (now building F1) by Dumont.





Evolutions in the '70s.





Sports facilities:

View of building E “education physique” and of building F “cite Paul Héger”.

(source: <http://lisaserver.ulb.ac.be/tabledutemps/periode4-T1-1937.php?titre=0&desc=1&icones=1&vents=0&pos=1>)



Elevation of the Campus in the 30's until the beginning of the 50's.





1966-67, a new elevation towards av. Jeanne:  
Building S "Social sciences", by Robert Puttemans in "international style". Building renewed in 1993.



1953-57, a new elevation on av. Buyt:  
Building C "Construction and Civil Engineering", by Marcel van Goethem in "international style". Building renewed in a post-modern style in the '90s.



BUILDING D “Physics”  
built in 1959–64  
by Pierre Gullissem  
“international style”



BUILDING H “Law”  
built in 1968–71  
by Marcel Lambrichts  
“brutalist style”



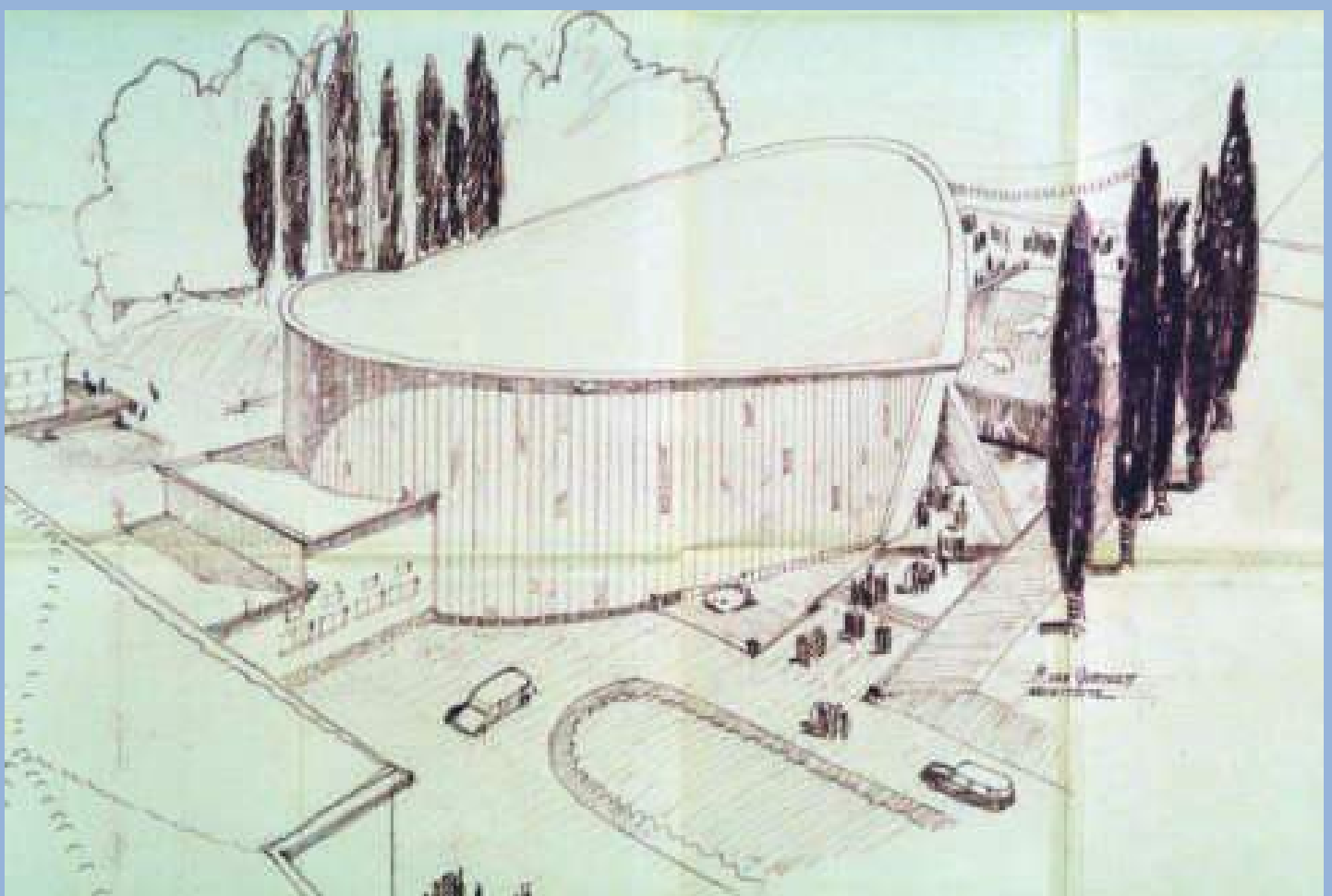


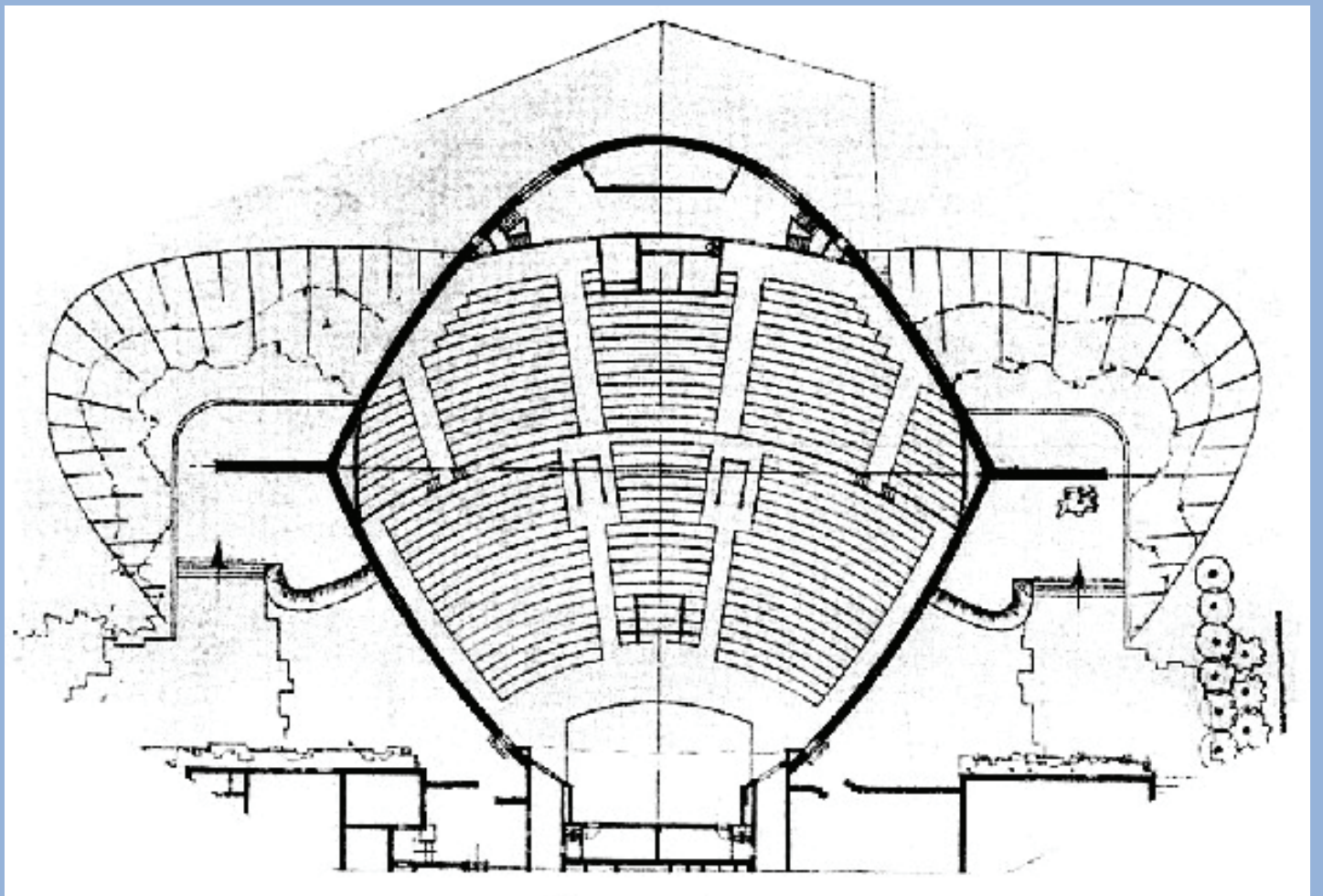
*Samedi dernier a eu lieu l'inauguration des nouveaux locaux de l'Institut Botanique Léo Errera, transféré avenue des Nations, dans l'ancienne Maison des Etudiants. Au cours de la cérémonie inaugurale à laquelle assistèrent de nombreuses personnalités, MM. Servais et Bomer ont fait l'éloge de l'homme d'élite et du grand savant que fut Léo Errera, dont le buste est au seuil du nouvel Institut (à droite).*

BUILDING J "Maison étudiante"  
built in 1928 by Dumont.



Auditorium J added in 1956  
by the engineer P. MOENAERT  
and the architect M. VAN GOETHEM









Library



Library



Solvay School

Buildings by Art and Build :  
"Library" 1993-94  
"Solvay School" 2009-10

2009-11  
Building K "Auditorium" by Montois Partner





2020–2022  
Extension of building U by A2RC ARCHITECTS

# LECTURE SERIES

ORGANISED BY THE STUDIO TEACHING TEAM





# University and the City: Questing the sustainable (re)development of the Brussels University District

## #1 'PLAN-GUIDE SOLBOSCH'

Tuesday 21st SEPT. 2021 [17-18h]

Geoffrey Grulois and Hubert Lionnez (ULB)

on webinar & in person, location: building C room C2.223, Solbosch Campus

## #2 'THE BECOMING OF ULB'

Tuesday 28th of SEPT. 2021 [16.30-18h]

Central & BUUR/Sweco

on webinar & in person, location: La Cambre, Auditorium Place Flagey

## #3 'USQUARE, LA PLAINE & STUDENTS' LIFE'

Tuesday 5th of OCT. 2021 [16.30-18h]

Milène Deneubourg & Alice Gloire (Perspective.brussels)

on webinar & in person, location: building C room C4.219, Solbosch Campus

## #4 'BRUSSELS UNIVERSITY DISTRICT'

Tuesday 12th OCT. 2021 [17-18h] on webinar & in person

Michael Ryckewaert (VUB)

on webinar & in person, location: building C room C4.219, Solbosch Campus

## #5 'BUILDING FOR UNIVERSITIES'

Tuesday 19th OCT. 2021 [17-18h]

Michał Sikorski (TLO architecture & urbanism)

on webinar & in person, location: building C room C4.219, Solbosch Campus

## #6 'LANDSCAPE DESIGN IN URBAN PROJECTS'

Tuesday 26th OCT. 2021 [17-18h]

Steven Petit (OMGEVING - landscape architecture urbanism)

on webinar & in person, location: building K room K3.601, Solbosch Campus

## #7 'DESIGNING (WITH) METABOLISM'

Tuesday 9th NOV. 2021 [16:30-18h]

Marco Ranzato (Università Roma Tre),

Nadia Casabella (ULB & 1010 architecture urbanism)

on webinar & in person, location: building K room K3.601, Solbosch Campus

## #8 'URBAN LANDSCAPE ECOSYSTEMS'

Tuesday 23rd NOV. 2021 [16:30-18h]

Sarah Van de Velde (BSS) and Philip Stessens (ULB)

on webinar & in person, location: building K room K3.601, Solbosch Campus

To subscribe to one or more lectures and receive the link to the webinar please send an email to [giulia.caterina.verga@ulb.be](mailto:giulia.caterina.verga@ulb.be)  
Organised by the Chair Sustainable Architecture & Urbanism  
(prof. A. Z. Khan, BATir, ULB).

# UNIBODY

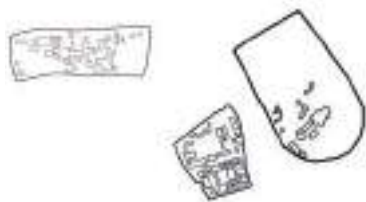
TEAM:

NELLY ALARDIN, LENA JENART, NICK MENS, MICHELE MONINA, AURELIE VERHELST



# UNIBODY

## DIFFERENT ORGANISM WORKING TOGETHER



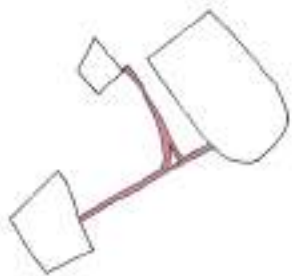
SPLITTING FACULTIES

RECONNECT KNOWLEDGE



SUSTAINABLE LANDSCAPE

CREATE AN UNIFIED SUSTAINABLE LANDSCAPE BETWEEN THE CAMPUS AND THE BUD



SOLBOSCH - LA PLAINE - USQUARE

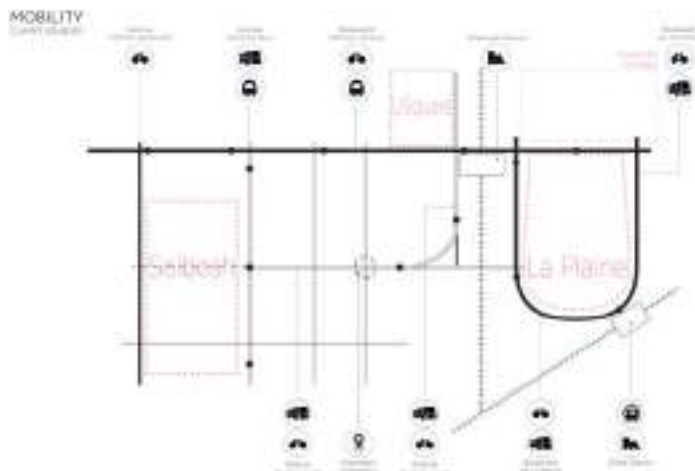
INTERCONNECT THE DIFFERENT CAMPUSES WITH FOCUS ON SLOW MOBILITY



BUD COMMUNITY

CREATE ONE UNIFIED BY INTERCONNECTING RESTAURANTS, HOUSING, SHOPS, MOBILITY AND THE CAMPUS

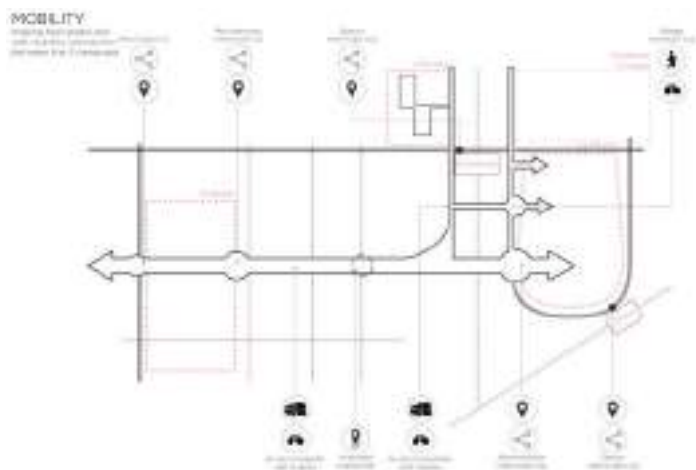
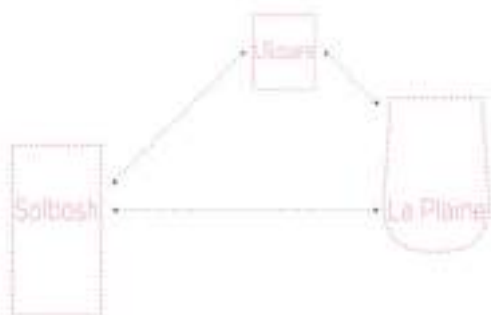
### ANALYSIS BUD



### VISION BUD

#### CAMPUSES IN THE BUD

Connect in the bud



#### GREEN SPACES

Integrate green spaces and mobility in the landscape















1. LITTLE FOREST



2. PARK JANSON



3. GREEN AUDITORIUM



4. GATHERING SHELTER

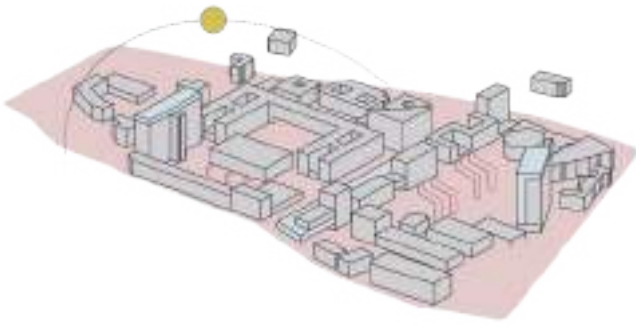


5. EDUCATIONAL GARDEN

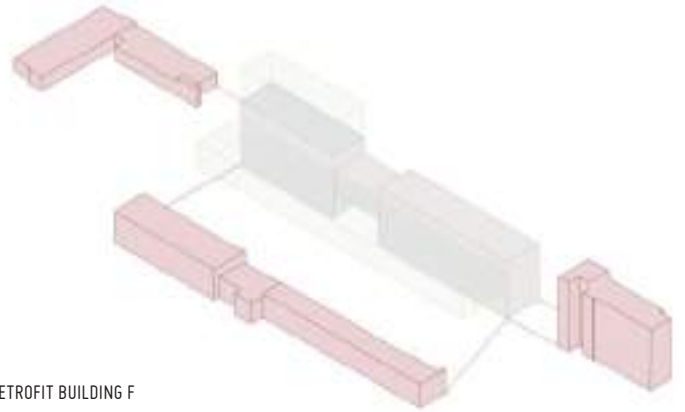


6. CAMPFIRE

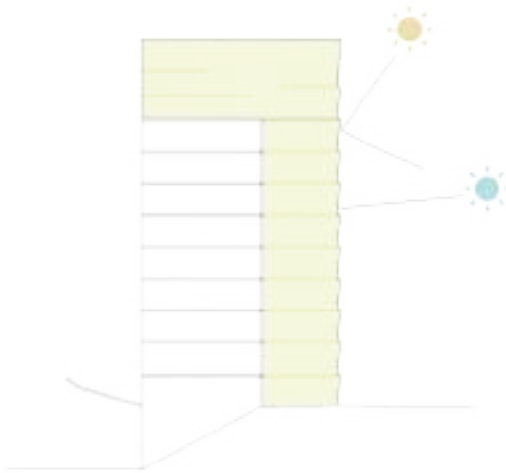




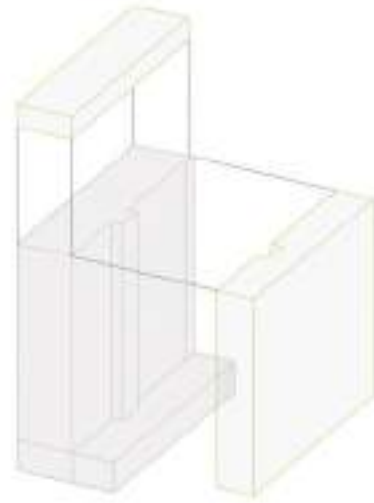
SUN ANALYSIS



RETROFIT BUILDING F



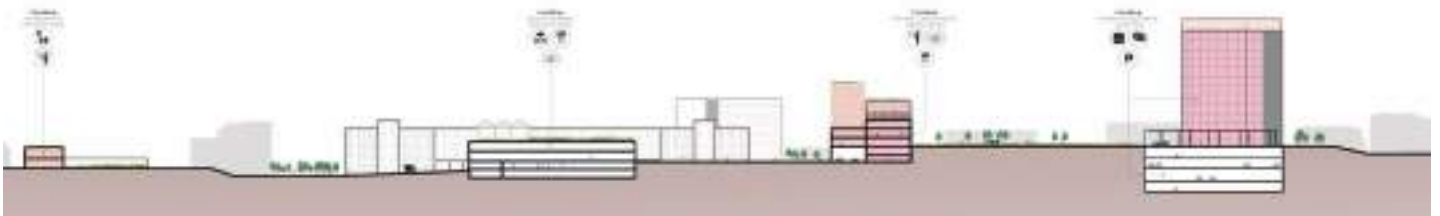
BUILDING S



RETROFIT BUILDING S



SECTION AA'



SECTION BB'



# 365 CAMPUS

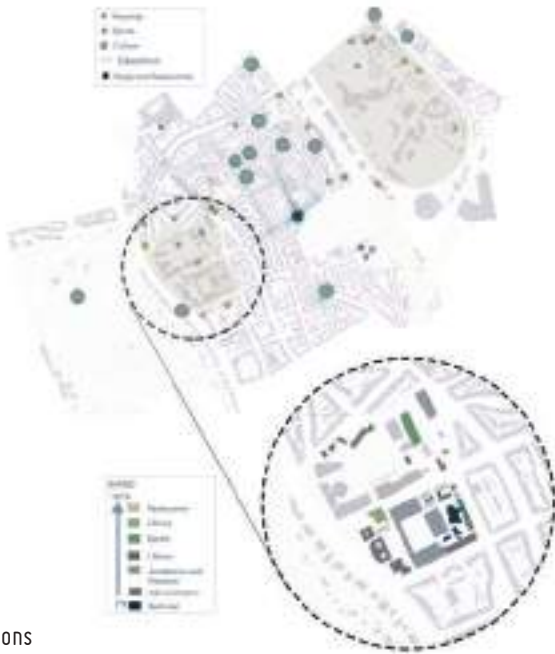
TEAM:

CÉLINE CLARYSSE, ROMANE LAUWERS, NEEL VERHAVERT, NICOLA DI BARI, ALEKSANDAR STENOS-  
EVIC, ODAI HAMEED THAMER

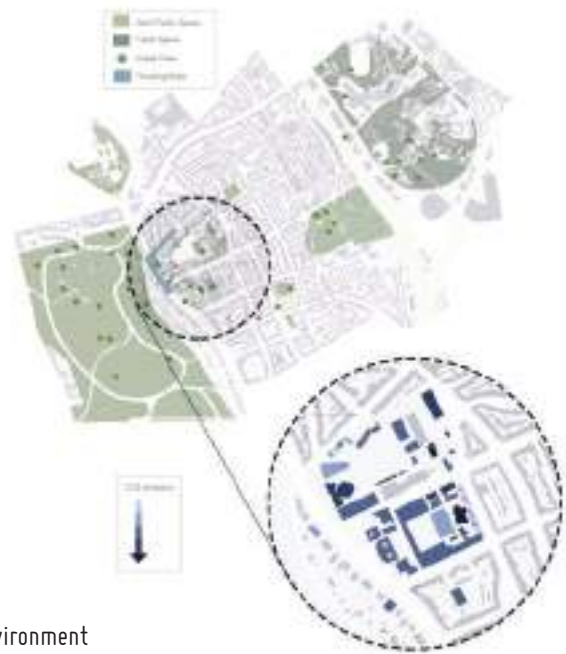




# Existing situation



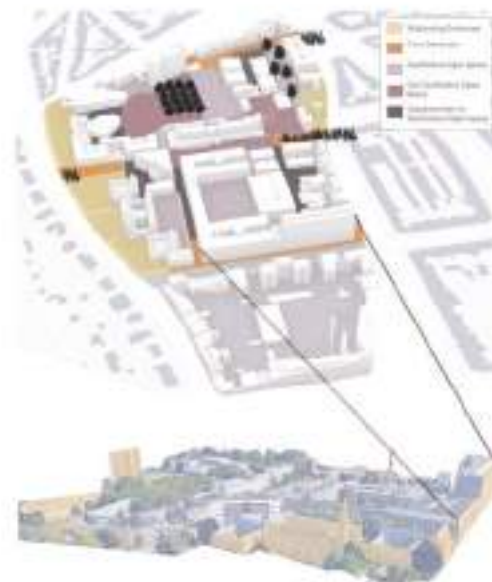
Functions



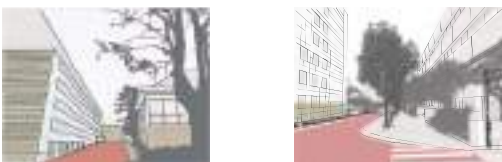
Environment



Mobility



Voids and boundaries



Multifunctionality : Culture



Shared Space



Nighttime



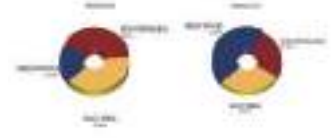
Summertime



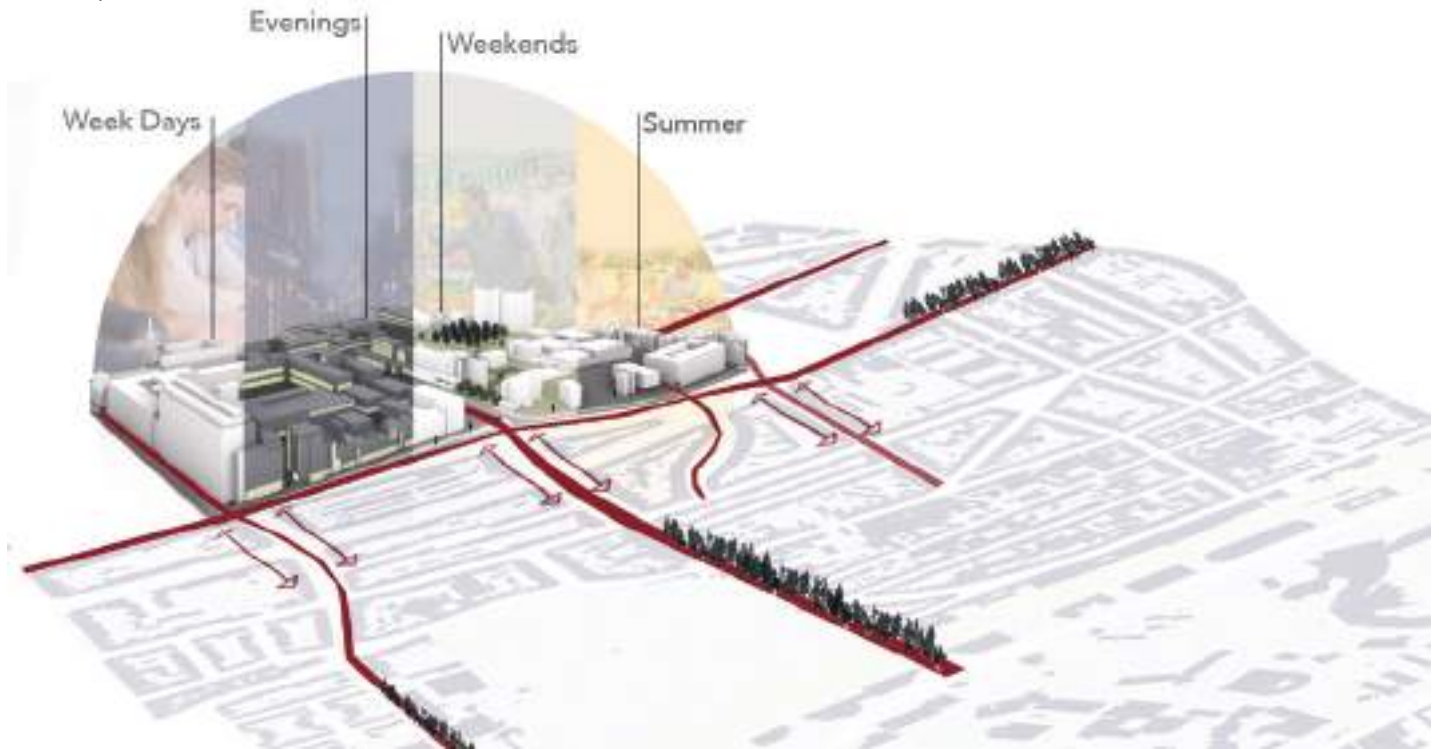
Weekends



Parkings



# Concept

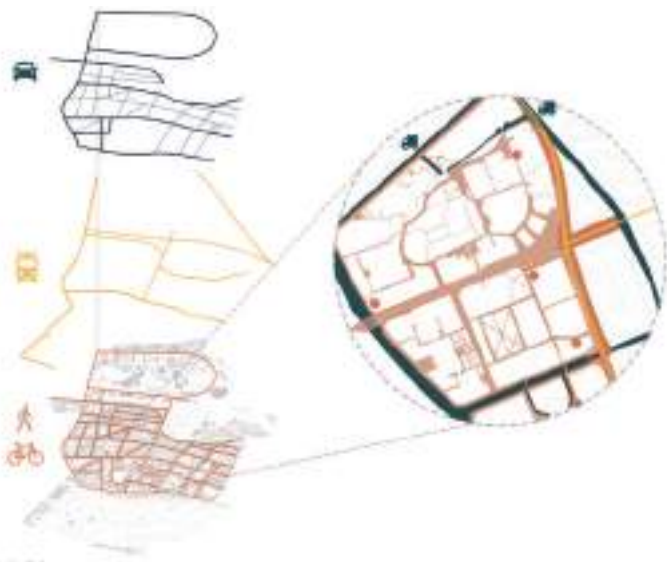
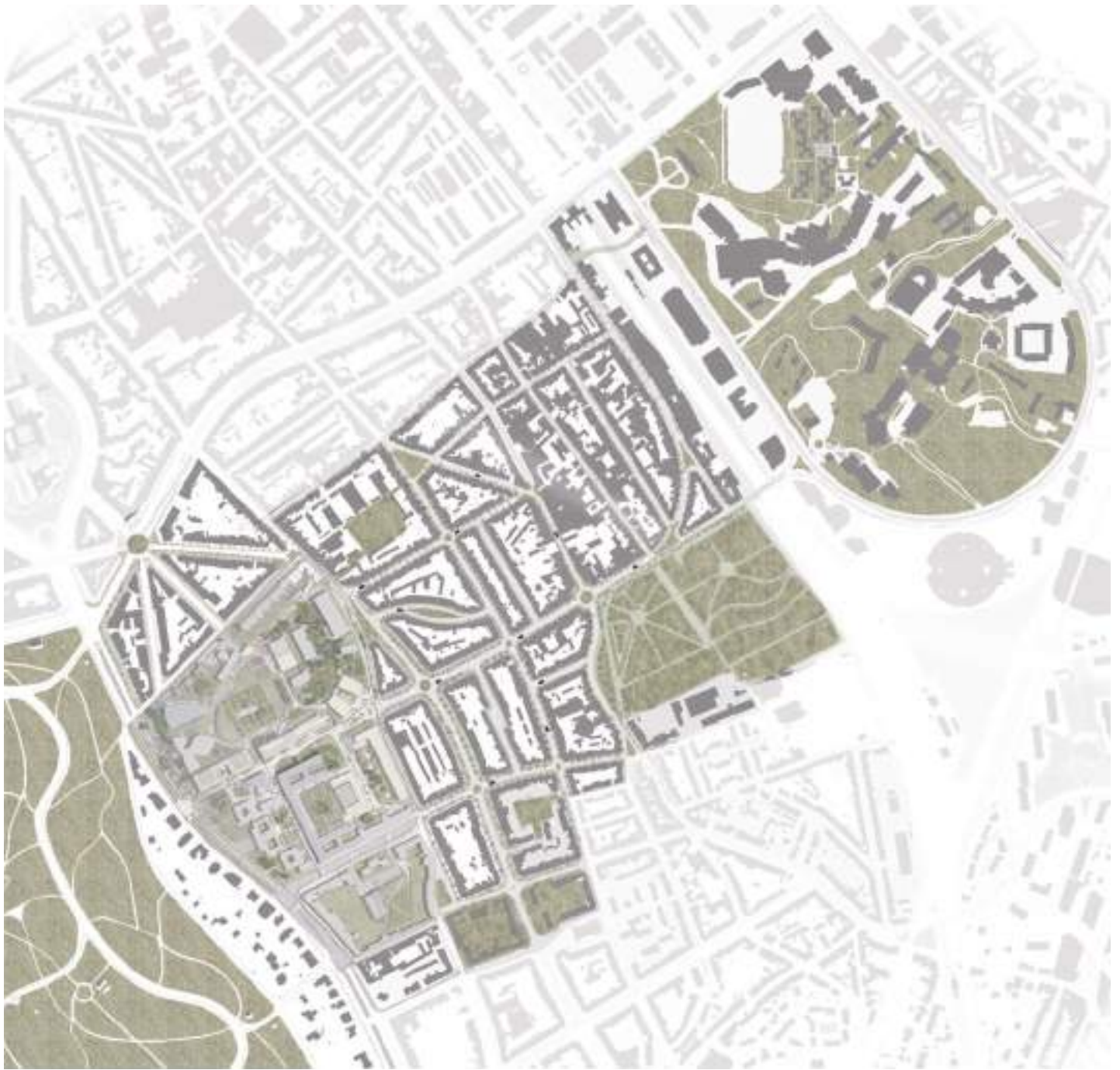


A university should be a place of connection and meeting. It is a place where a continuous interaction exists between students, educators, researchers, and even local inhabitants. Not only this will create a livelier place to be, but it will also improve the existing environment in a space-efficient way. The university area will not only be used by day and during the academic year, but will be used by night, during weekends and during academic holiday periods as well: that way we envision a 365-days, 24/7 campus where classrooms and auditoria co-exist with cultural exhibitions, movie theaters and research workshops. Central in this idea, stands the connection to the neighbourhood and the city of Brussels. To survive, the university needs the city and its inhabitants. However, this is a mutual relationship: the university also offers what the city cannot provide. Finally, as the 365 campus aims to bring people from every category together, it provides an opportunity to improve the area in a sustainable way.

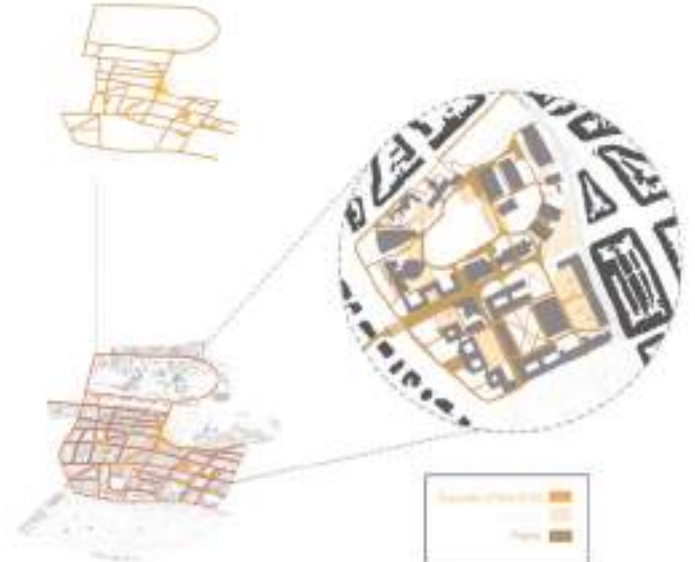
To implement this concept on to the existing campus, problems on various aspects were defined. For example, due to the physical border around the campus, mostly present in the form of obstacle slopes, large edges and high-rise buildings forming walls. Another spatial problem is the presence of multiple narrow alleys, nonfunctional spaces, and randomly placed buildings. Moreover, the current program at Solbosch does hardly offer opportunities that you cannot find in the close neighborhood, which causes the university to be empty when students are not present. Making this program more attractive, in a sustainable way, and creating a more porous and transparent campus is therefore the aim of our project.

Specifically, several “friction squares” were defined throughout the campus and the Brussels University District. This is a network of squares, with a large possibility of creating interaction between students and inhabitants, for example next to a library. These squares will be the “hearts” of campus. Moreover, the functions around these squares will also enhance this aspect, by putting a lot of attention into creating lively ground floors, since this is mostly where the interaction between city and campus will happen. Finally, by adding the functions in retrofitted and renovated buildings, we aim to optimize the use of space. Multi-functionality will therefore be a keyword in the built strategy. New buildings are inevitable keeping in mind the growth of ULB and the increase of provided program but are designed in a modular and circular way. This way the multi-functionality is also possible there. After all, needs of the neighborhood will change, and to keep the ecosystem of neighborhood and campus alive, campus will have to adapt. Using the network of squares and modular building, we hope to redesign a plan that can be applied gradually and is flexible for the future. What people need will not remain the same, and what we want is to keep this in mind for the future and be able to base our design on this aspect.

# Masterplan - Brussels University District



Mobility



Network of squares

# Masterplan - Solbosch campus



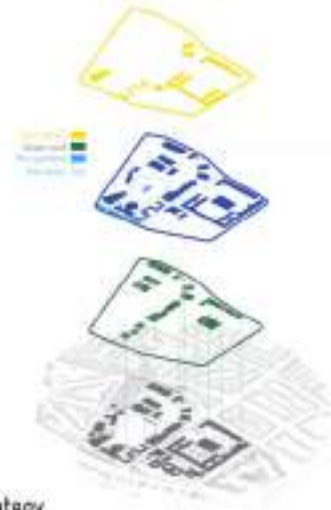
# Strategies



Programmatic strategy



Building strategy



Environmental strategy



Section AA



Section BB

# Functions



## Ground floors



## Growth scenario

## 3D view functions



# A walk around the campus







# UNI-FY

TEAM:

CAMILLE ANAF, EMMELINE BROUWERS, FLEUR DILIËN, SARA BUELLENS, MEDIHA LOCKE, SAMAR  
ESLHOBAKY

# 03



# Analysis

## Brussels University District



Interesting urban ensembles



Fragmented green



Good connection



Soft transport opportunities



Socio-cultural



Solar analysis

## Solbosch Campus



Fragmented green



Flooding hazard



Historical value



Accessibility



Socio-cultural

# Vision

*Reinforce the urban fabric by creating a sequence of urban figures and link them through an urban axis*

Coherent fabric

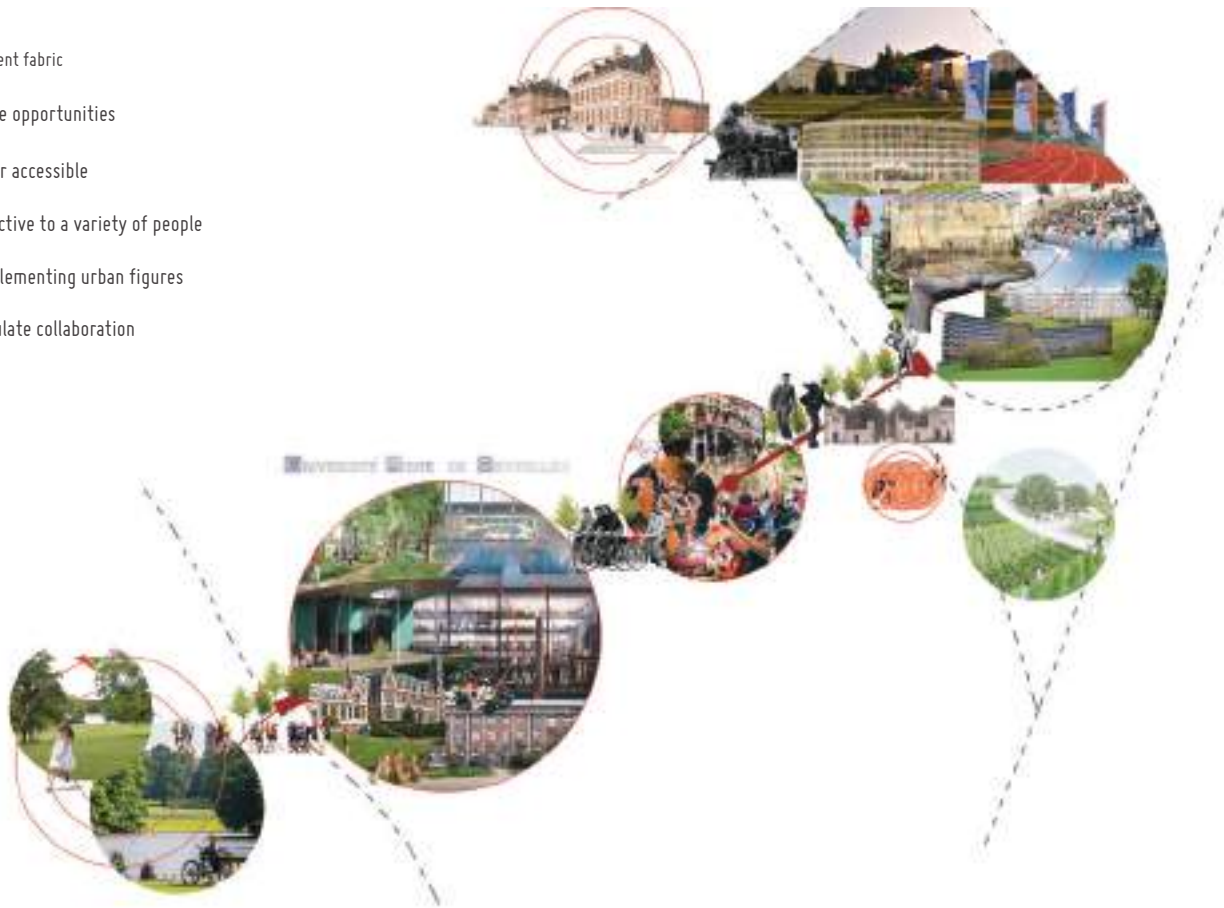
Create opportunities

Better accessible

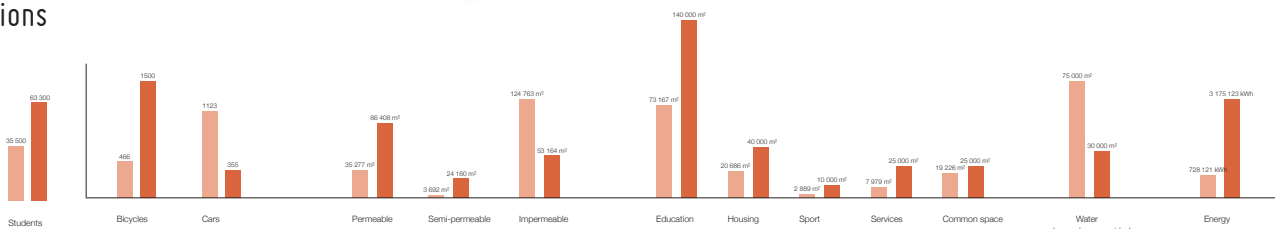
Attractive to a variety of people

Complementing urban figures

Stimulate collaboration



# Ambitions



### Soft-mobility oriented

Checked with cars, not bicycle-friendly, unpleasant for pedestrians  
No cars on campus  
Designated bicycle infrastructure  
Clear hierarchy of walkways  
Safe connection with the city

### Enhance green areas

Scattered green, large impermeable areas, neglected spaces  
Increase permeable areas for water infiltration  
Connect scattered green for biodiversity  
Diversity of natural qualities

### Improve campus life

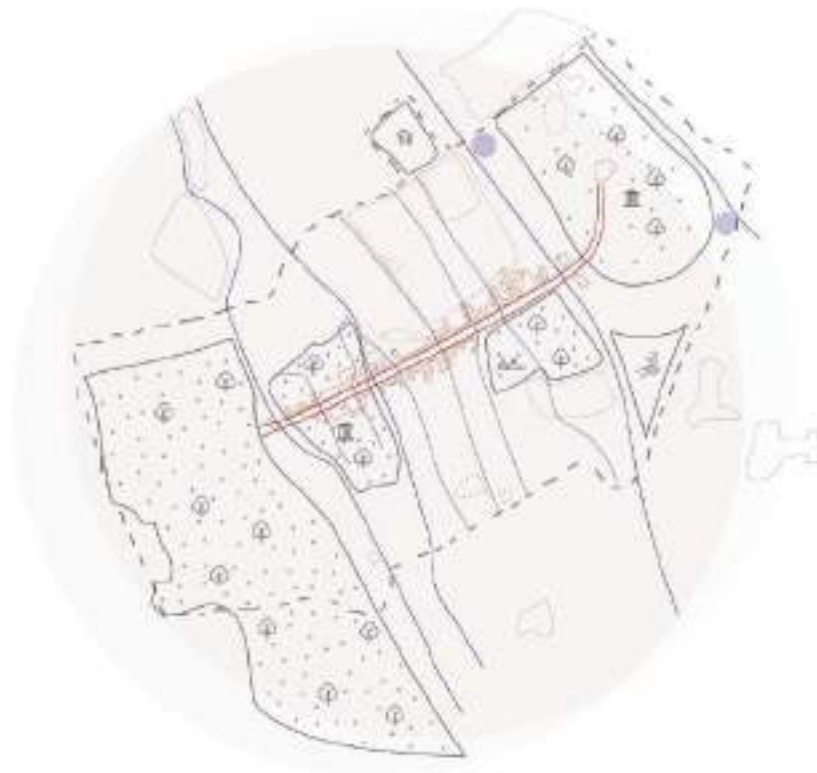
Monofunctionality, inefficient use of space, no night-time activities  
Readable campus with a variety of atmospheres  
Strengthen Solbosch identity  
Multi-purpose and accessible buildings  
Community and after-work activities

### Environmental management

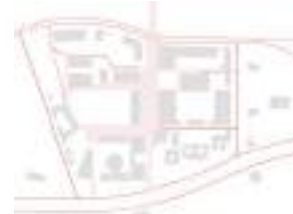
No overall flow strategies  
Collect rainwater and re-use it  
Lower energy consumption and provide 50 % on campus  
Maximize re-use of construction waste and composte organic waste

# Spatial strategy

Brussels University District



## Solbosch campus



Readability



Connected green spaces



Removed buildings



New and modified buildings



Water management



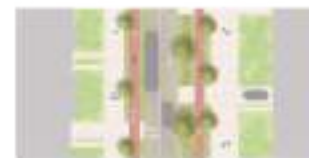
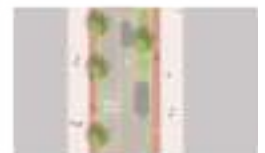
Programming

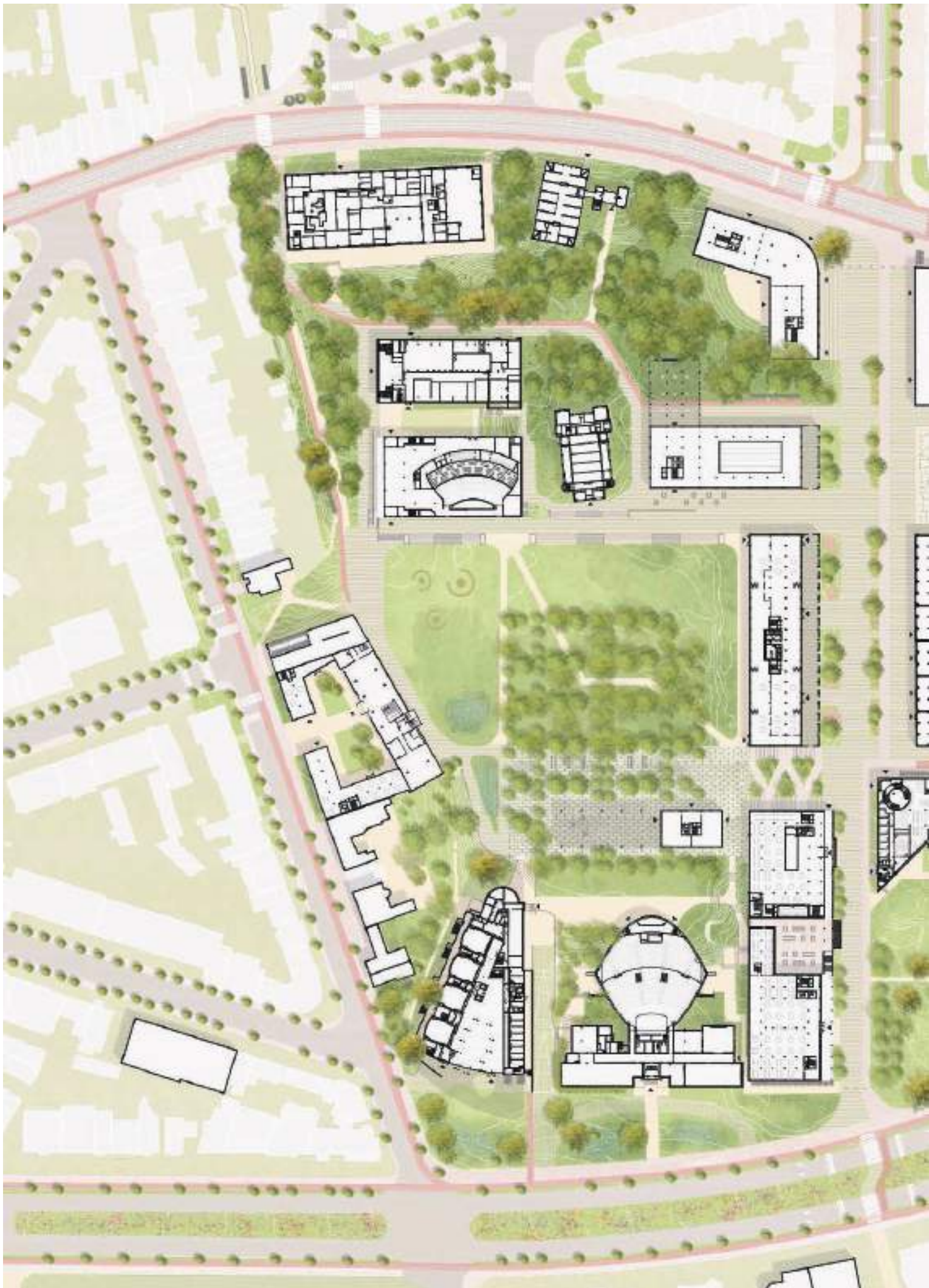
# Masterplan

Brussels University District



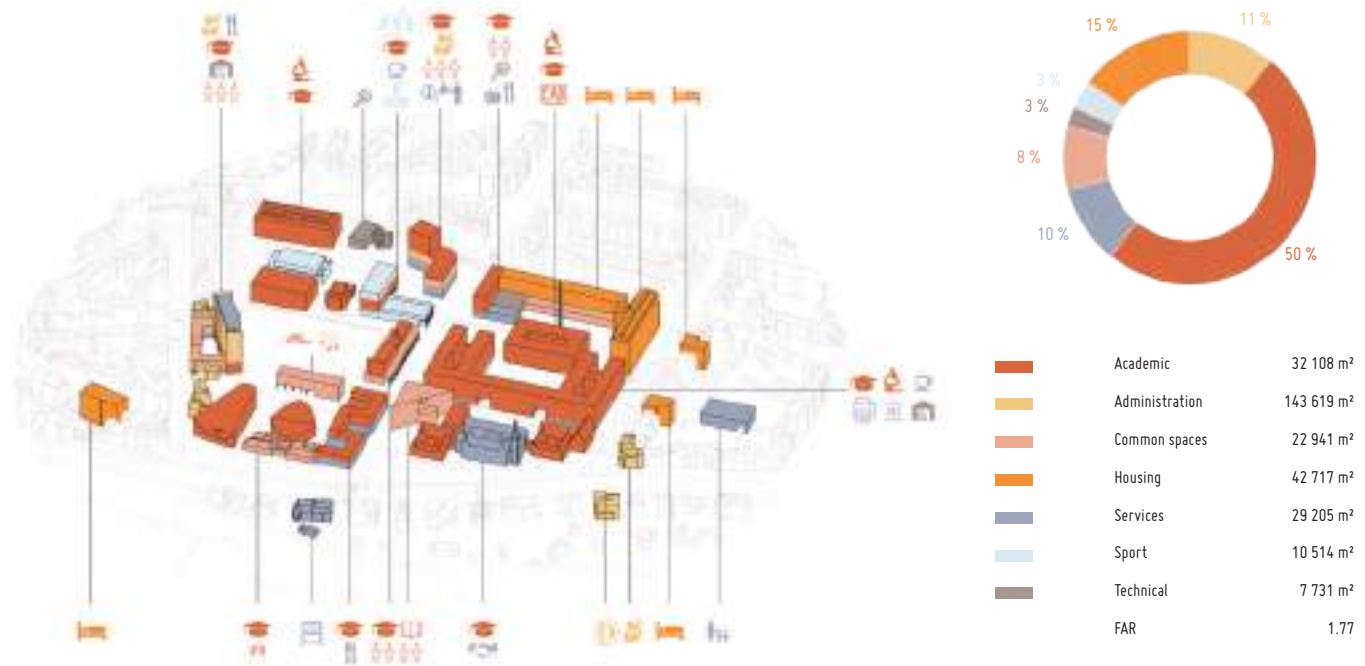
## Detailed urban axis





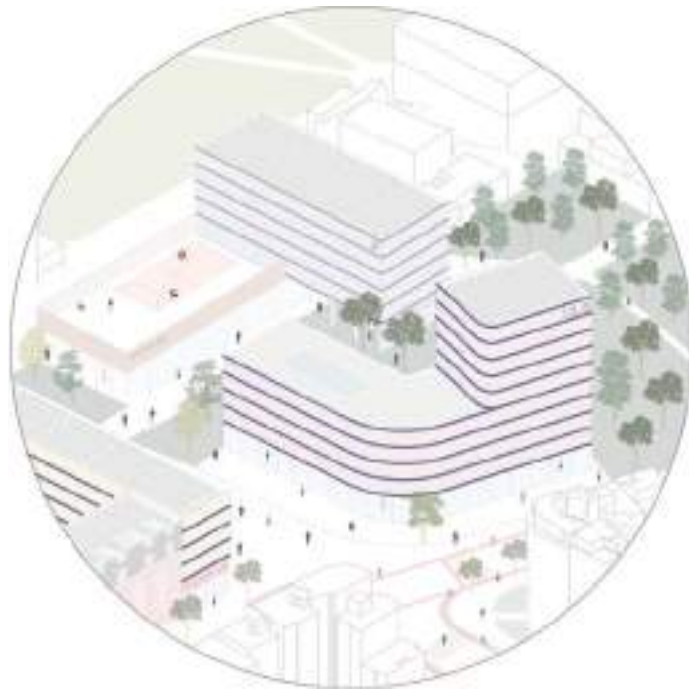


## Program

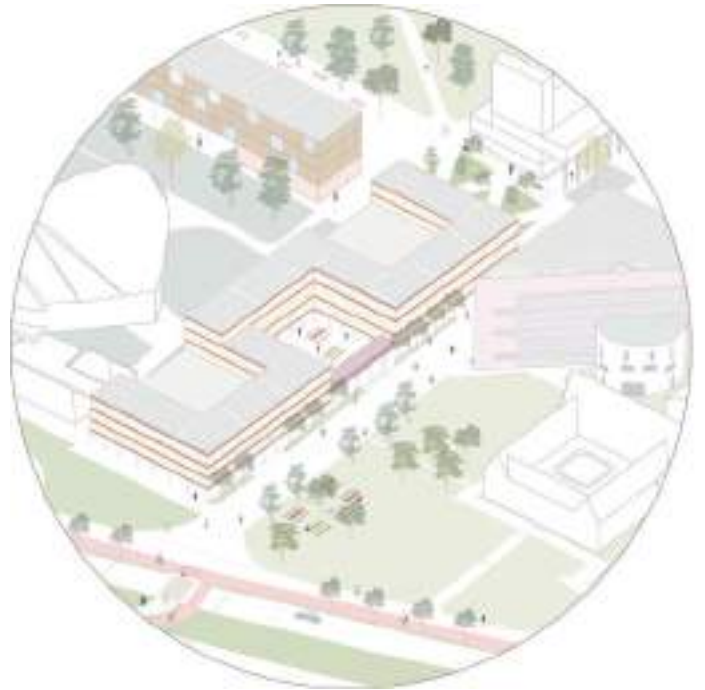


## Portal buildings

Buyl entrance



Roosevelt entrance



## Sections

South-North





# Detailed strategies

## Open space strategy



Main axis



Local market day



Green theater



Event square



Rooftop sport court



Terrace



Janson seating area



Forest



Bioswales

## Event square



## Janson Park



## East-West

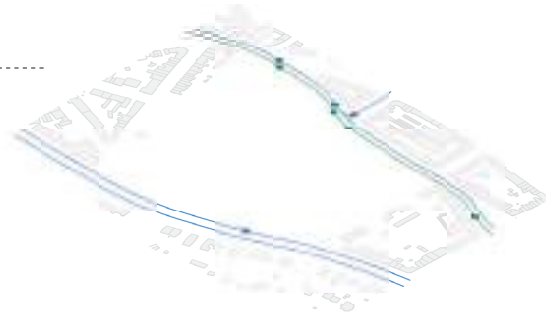


# Detailed strategies

## Mobility

### Public transport

- Bus line
- Bus station
- Tram line
- Tram station



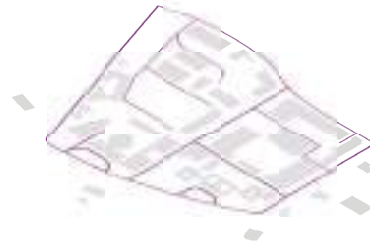
### Soft transport

- Bicycle path
- Bicycle station
- 750 secured bike spaces
- 730 open bike spaces



### Safety

- Fire truck access



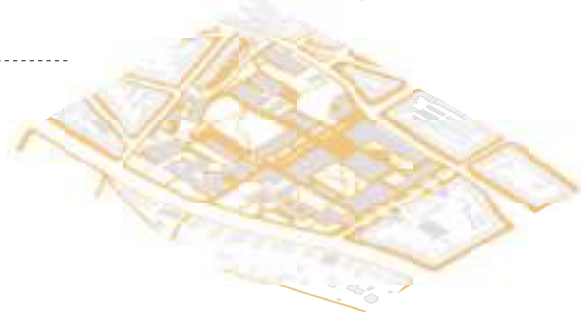
### Hard transport

- Car access
- Underground parking
- 355 parking spaces
- Kiss and drive
- Internal delivery path
- Delivery hub



### Pedestrian path

- Pedestrian access



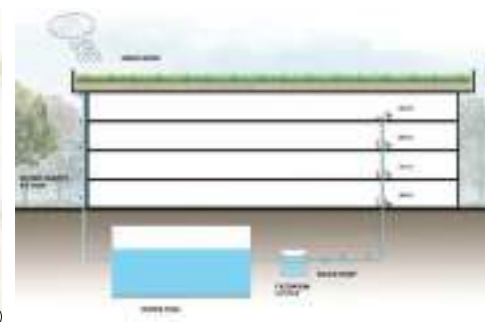
## Roofplan



## Water management



## Water collection strategy



# Detailed strategies

## Solar analysis



## Colonnade



## Solar strategies

Skylight and platform levels

Reflective blinds

Colonnade

Atrium

Overhanging roof



## Thermal strategies

Heat loss

Glass extension

Green roof

Geothermal - winter

Geothermal - summer



## Phases

Phase 1

Phase 2

Phase 3



# LEARNING ECOSYSTEM

TEAM:

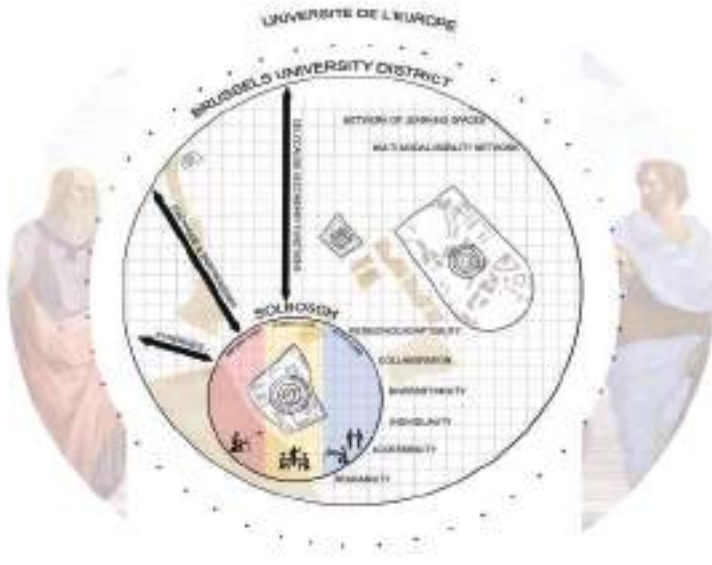
KAJ-WOLF DEPUYDT, HANNE DIERCKX, LUCAS VANHUFFLEN, MOHAMED AYOUB ES-SELMOUNI,  
XANTIPPE VAN SCHOOR

# 04



# Vision scheme

# Ambitions

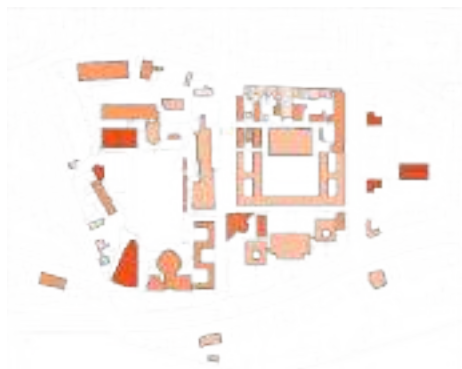


Through the analysis of the campus of Solbosch and the Brussels University District it can be concluded that the main issue on the campus and in this neighborhood is the serious loss of space and quality.

Our vision is that we perceive the BUD and the Campus as a learning ecosystem. Our University of the Future is an university which embraces new kinds of learning, e.g. flexible learning. The BUD is perceived as a composition/system of different campuses or learning centers. In this way the BUD can act as a sort of mediator between these centers. The district is the extension of the campuses, on many levels: mobility, exchange, learning space, synergy.



# Analysis



SOLBOSCH: HISTORICAL ANALYSIS



SOLBOSCH: PEDESTRIAN & TRANSPORT



SOLBOSCH: CAR



BUD: HISTORICAL ANALYSIS



BUD: PEDESTRIAN & TRANSPORT



BUD: CAR

Our main ambition is to create a clear, qualitative landscape that supports the students learning, with room for diversity/mixity and collaboration/individuality. Keeping in mind the importance of the relation campus-city and city-campus.

The series of strategies implemented to succeed in our ambitions, effectively come down into a reprogramming of the campus to a dominantly 'learning'/education based typology. However the term 'learning' has to be regarded in a broader context than just school and books. We envision a campus which is divided in certain zones: diverse zones with an accentuated learning. For example in the calm forest, one can learn about himself through self-reflection. The main notion that was presented in the beginning of this abstract was the loss of space and quality. This is also why large part of our strategies concern the connecting and structuring of space.

Detailed strategies concern very practical matters like arranging mobility in order to improve the connectivity and safety or water-retention systems which help to establish a sustainable relation with nature. In the end our project needs to be understand in the way that it was already framed: it wants to create a well environment for people to learn but also an environment that pushes people to learn through interaction.

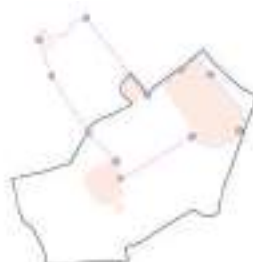
## BUD: spatial strategies



VERTICAL AND HORIZONTAL AXIS



PROGRAM



SHUTTLE



CIRCULATION PLAN



GREEN WALK BETWEEN CAMPUSES



## SOLBOSCH: Spatial strategies



REGROUP FUNCTIONS



REMOVED / ADDED / RENOVATED BUILDINGS



NEW PROGRAM



ACCENTUATED LEARNING



BIKE & CAR PARK



VERTICAL & LATERAL AXIS

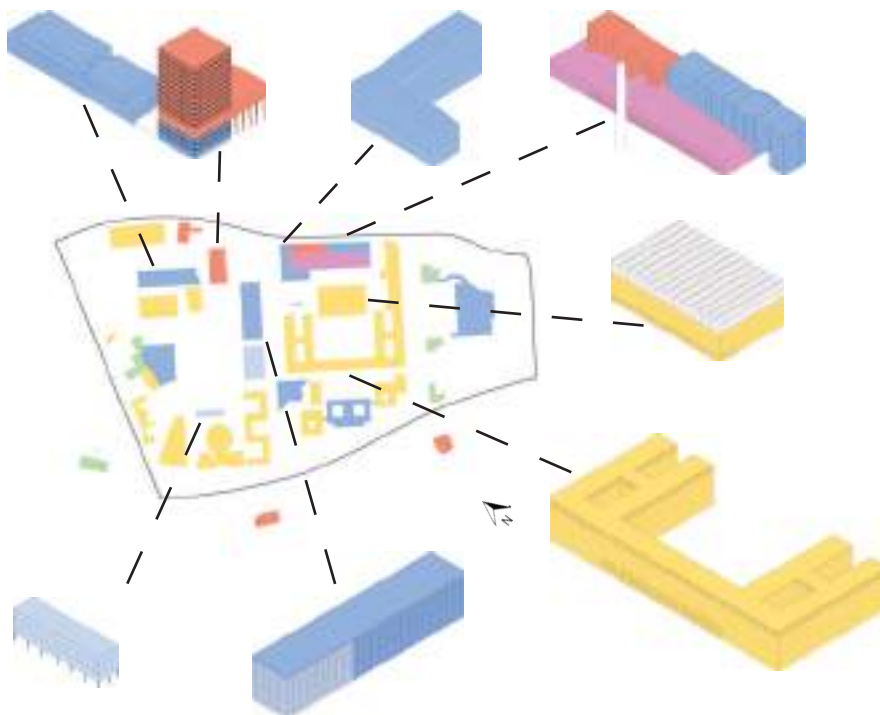
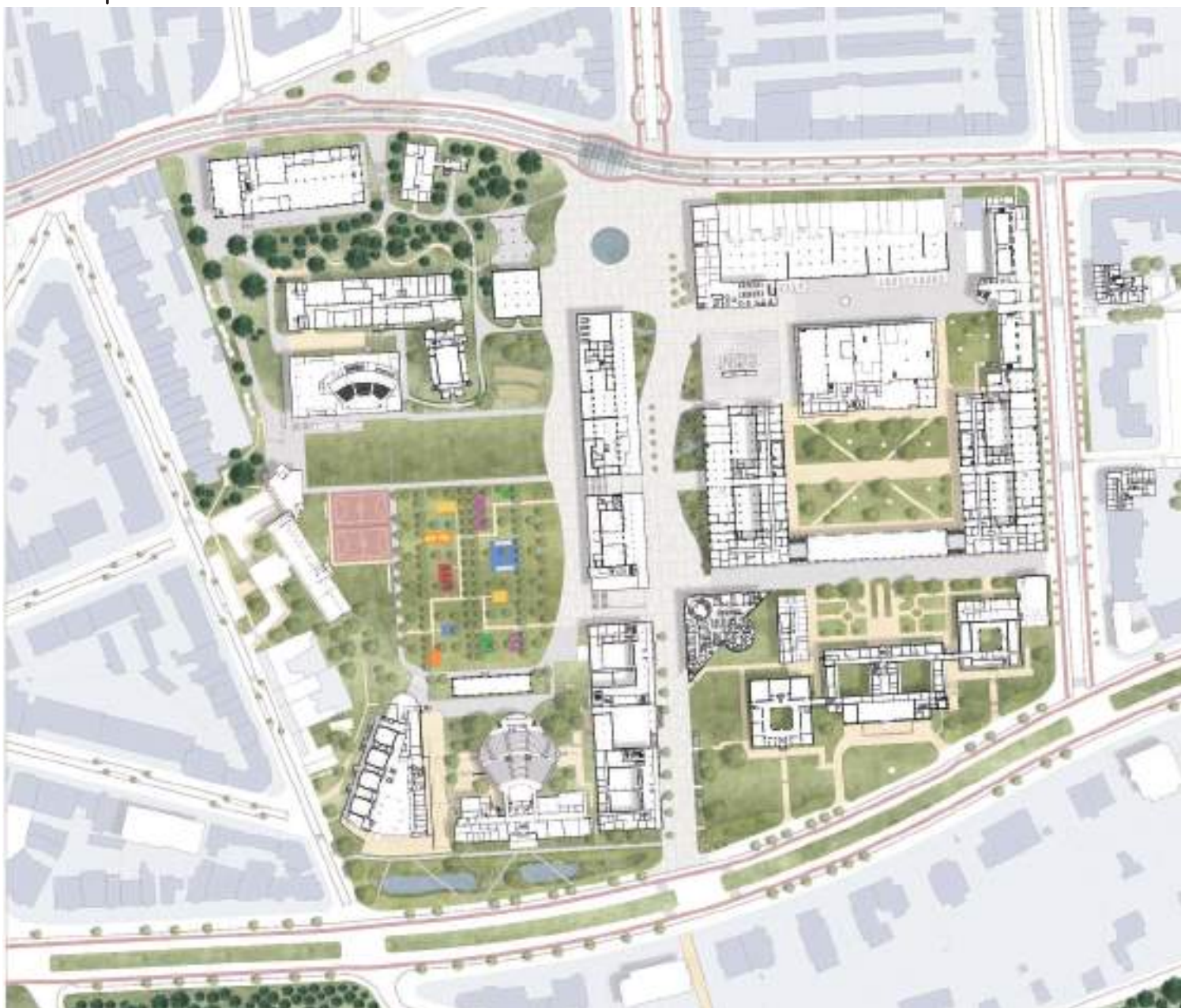


INTERIOR / EXTERIOR



WATER RETENTION SYSTEMS

# Masterplan Solbosch



## Program Solbosch

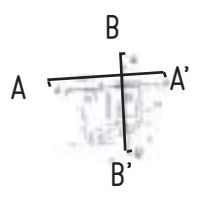
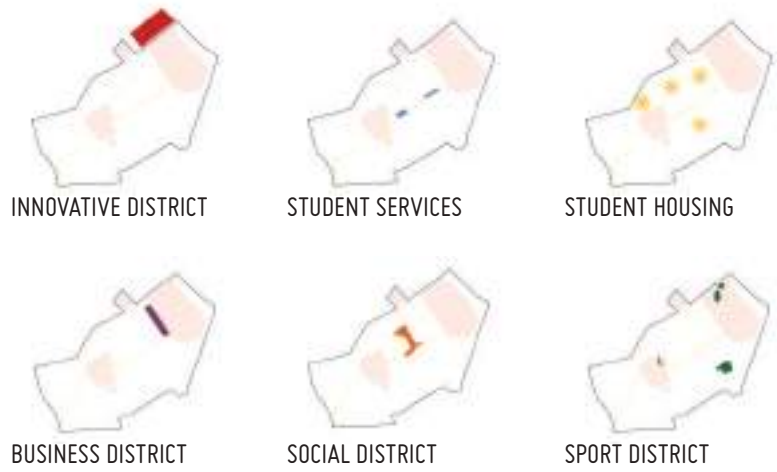
Type	Total Area [m <sup>2</sup> ]	Percentage	Increase
<b>Educational</b>		<b>47,5%</b>	<b>+ 7%</b>
Classrooms & Auditoria	79 682	27,5%	
Work & Study spaces	41 359	14,2%	
Research	16 894	5,8%	
<b>Services</b>		<b>24,2%</b>	<b>+ 126%</b>
Culture	28 904	10,0%	
Health	5 300	1,8%	
Sport	8 718	3,0%	
Food	8 513	2,9%	
Daycare	2 088	0,7%	
Parking	16 764	5,8%	
<b>Administration</b>		<b>9,5%</b>	<b>+ 2%</b>
	27 681		
Student Unions		4,2%	- 10%
Party	892	0,3%	
Offices	11 229	3,9%	
<b>Housing</b>		<b>8,9%</b>	<b>+ 20%</b>
	25 769		
<b>Technical</b>		<b>5,7%</b>	<b>+ 12%</b>
Workshops	2 856	1,0%	
Technical	13 666	4,7%	



# Masterplan Brussels University District



## Program BUD



SECTION AA'



SECTION BB'



# Accentuated learning



**Tholos**  
gather, collaborate



**Odeon**  
shelter, work, group



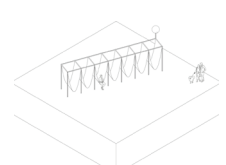
**Bouleuterion**  
gather, attend



**Temples**  
gather, collaborate, debate

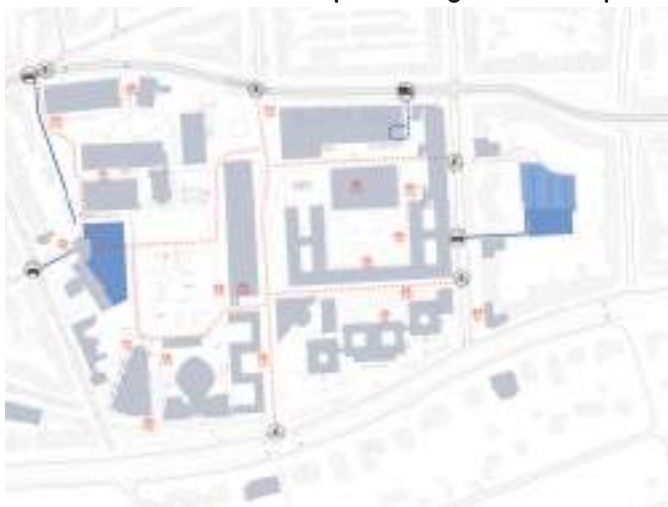


**Stoa**  
shelter, exchange



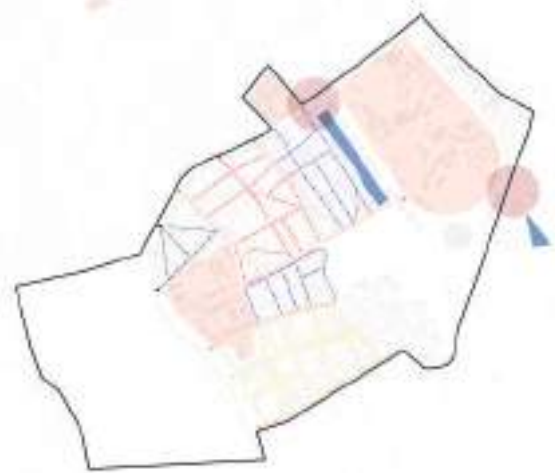
**Propylon**  
landmark

# Bike + car access/parking on campus



	Current	Future	
Car parking spots:	1123	456	-59%
Bike parking spots:	466	938	+109%

# Circulation plan bud — local traffic zoning



- Zone 1
- Zone 2
- Zone 3
- Zone 4
- Zone 5
- Interzonal
- Multi-modal hub
- Parking hub



# Street typology



**POTENTIAL PARKING SPOTS:**  
Etterbeek station (1 - level: 1100),  
Delta (3 - levels: 1350)

# Parking Hubs

# Water management & Green roofs



SEMI-PERMEABLE PATHS



WATER RETENTION



WADI



CAMPUS SOLBOSCH: 160 000 M<sup>2</sup>



PERMEABLE SURFACES: 48 6000 M<sup>2</sup>



IMPERMEABLE SURFACES: 59400 M<sup>2</sup>



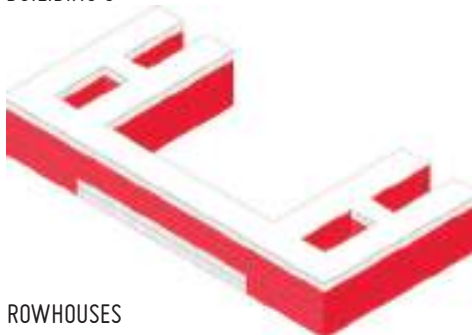
SEMI-PERMEABLE PATHS: 52 000 M<sup>2</sup>

# Retrofitting

BUILDING F



BUILDING U



ROWHOUSES



JEAN SERVAIS SQUARE



PAUL HEGER AVENUE

# PHOTOS

FINAL JURY AND 3D MODEL







SUSTAINABLE URBAN DESIGN STUDIO, MA-1  
BRUFACE - ULB + VUB - 2021/2022