

Cercle Gaulois Artistique et Littéraire  
16.04.2012





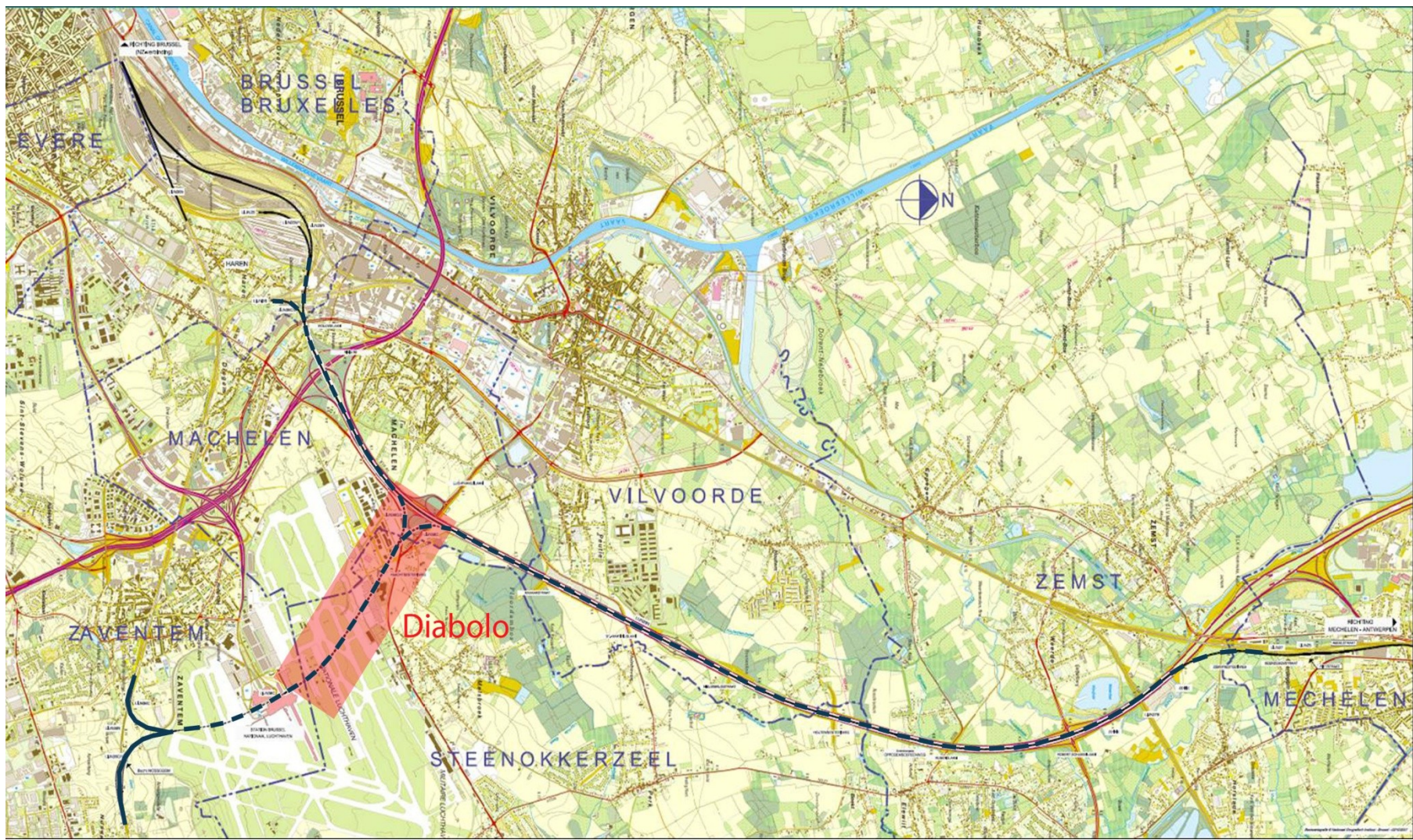
## DIABOLOPROJECT

**BRUSSELS INTERNATIONAL AIRPORT STATION: EXTENSION**  
station and part of tunnel



# Bruxelles-Midi

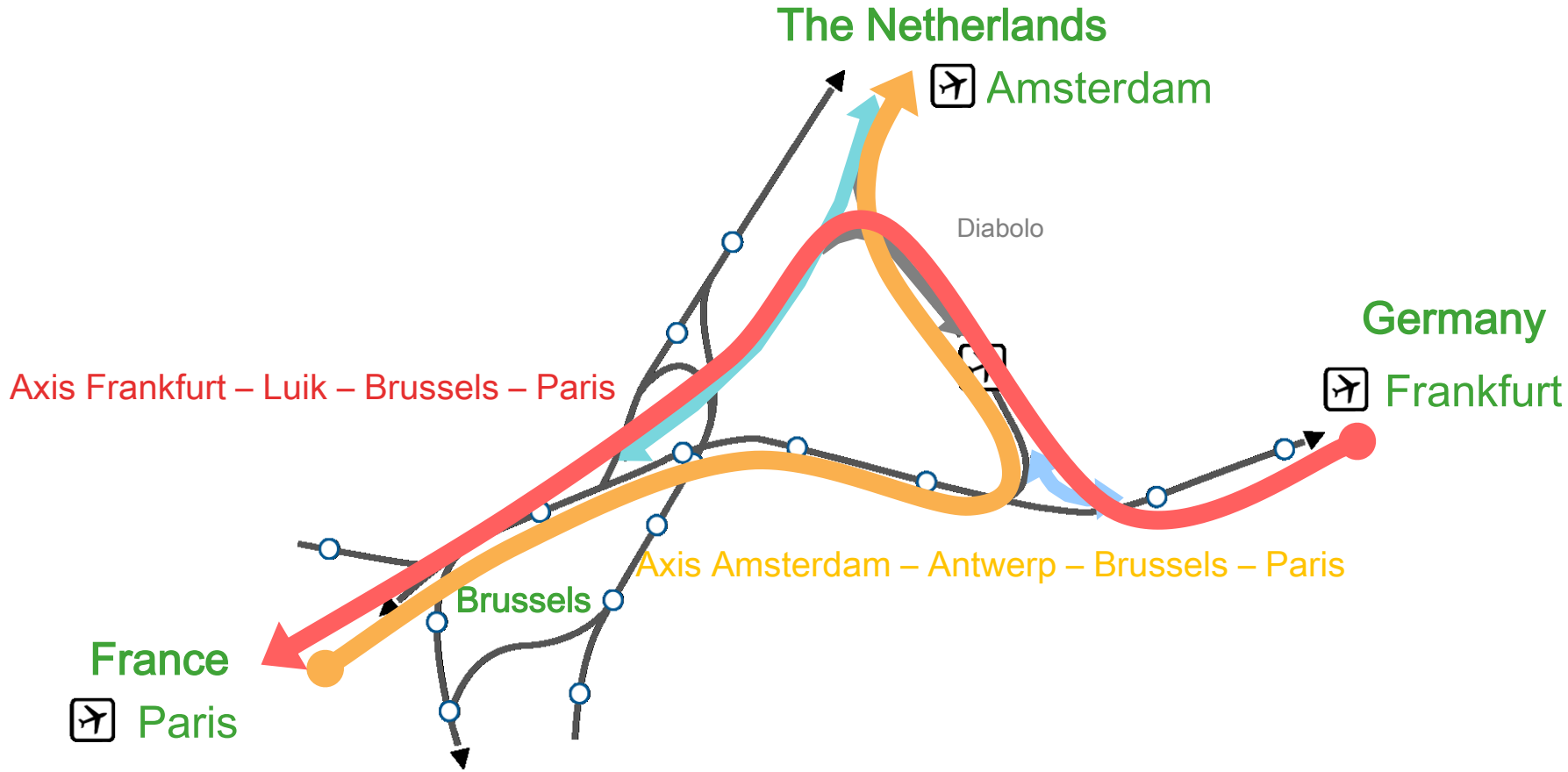
## GENERAL OVERVIEW



# Bruxelles-Midi

## STRATEGIC CONNECTIONS

Diabolo will connect various European cities by rail with the airport







290 mio euro  
Northern Diabolo NV (PPP)

Global investment:  
540 mio euro

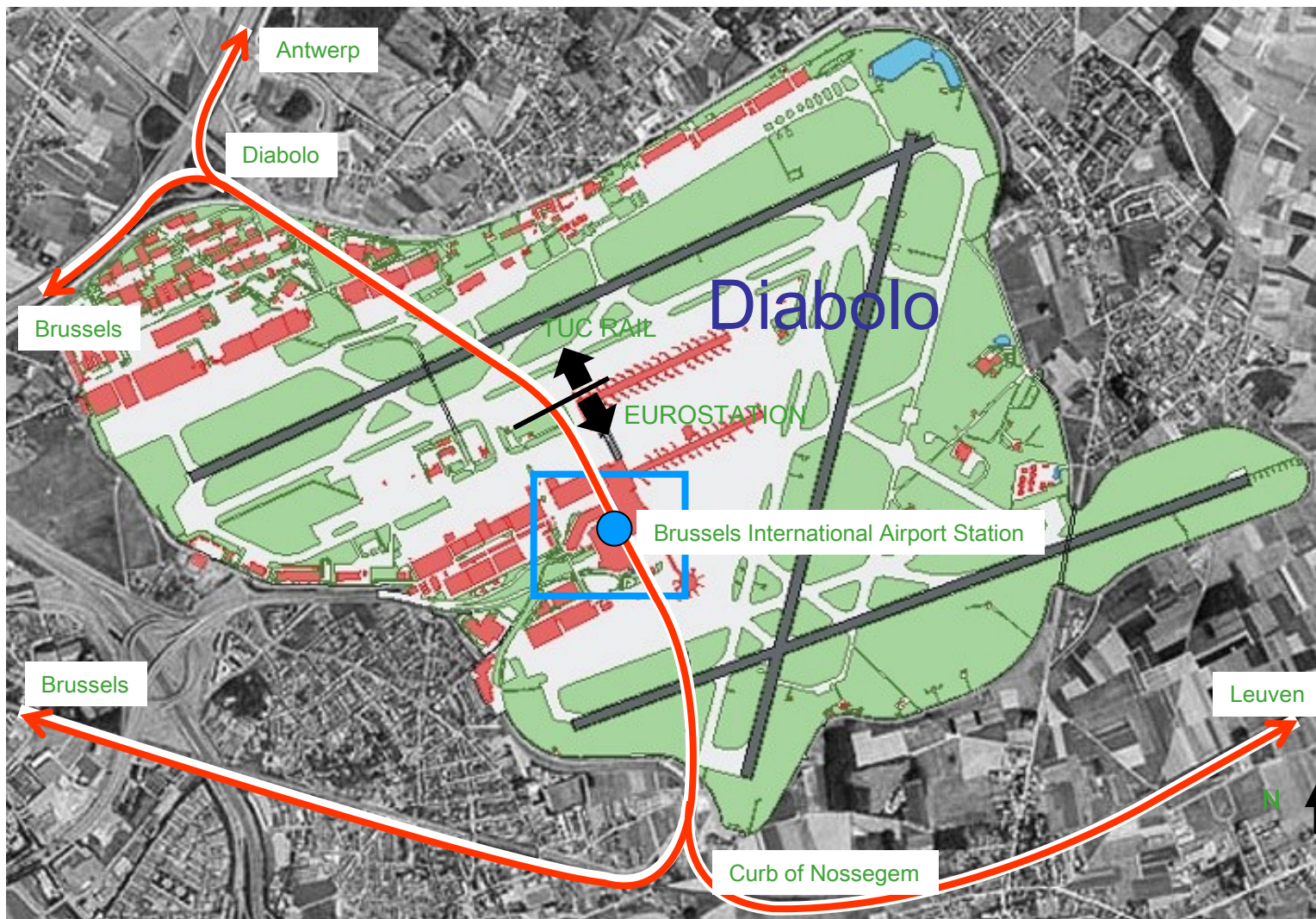
250 mio euro  
Infrabel



# Bruxelles-Midi

EXTENSION

Brussels international airport





# BRUSSELS INTERNATIONAL AIRPORT STATION: EXTENSION

## “OLD” SITUATION



Dead-end station with 3 railtracks



Inconvenient connection with airport terminal



Unclear circulation routes



Platforms are too short for long trains



# Bruxelles-Midi

“OLD” SITUATION

General view of dead-end station







No clear organization of the station hall: too small ticket offices and waiting rooms for the travellers  
No easy access to platforms for travellers with many luggage

Ticket hall  
(actually replaced by the  
Station hall)

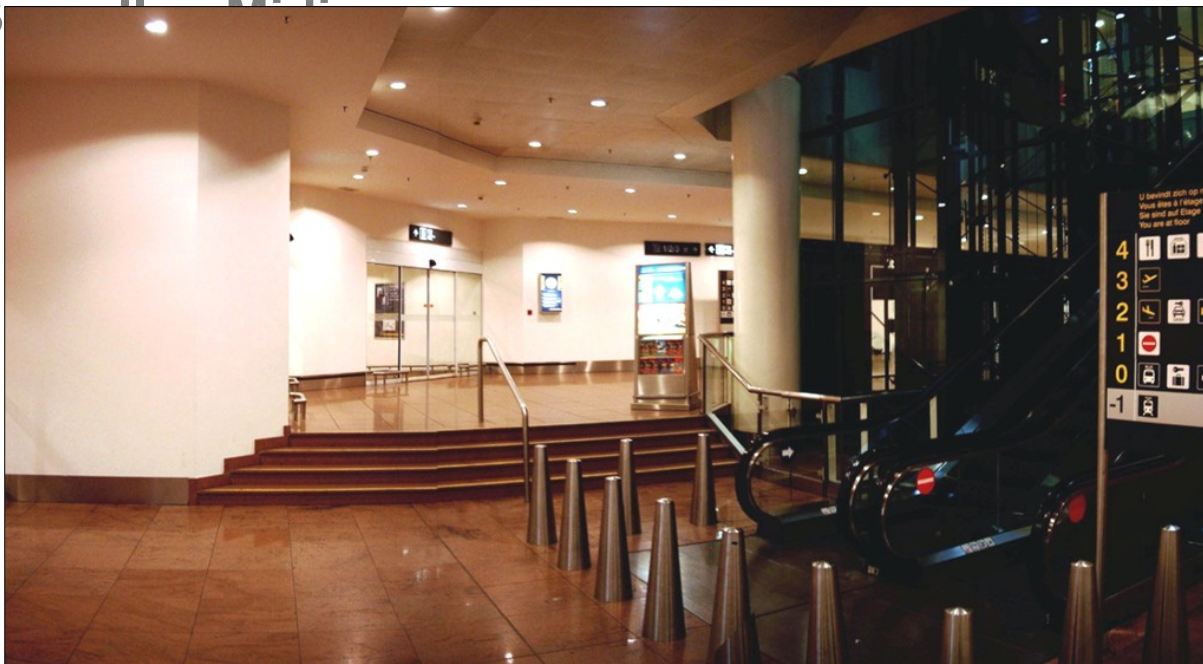


“OLD” SITUATION

Access to station hall via 3 locks with slopes  
Lifts only accessible via the “diamant”



B



“OLD” SITUATION: “Diamant”

From the “Diamant” one can access the station-hall via sloped floors and stairs.  
 Capacity, accessibility and clear organization are limited.  
 Due to this, the lifts behind the escalators are insufficient used.  
 Lifts from the platforms give directly to the “Diamant”.  
 Between the two lifts shafts is 60 cm high difference to impede trolleys and travellers with lots of luggage.





# BRUSSELS INTERNATIONAL AIRPORT STATION: EXTENSION

## “NEW” SITUATION: Diaboloproject

- ➔ station with 3 through tracks
- ➔ Can be expanded to 5 tracks
- ➔ New station hall with travel centre
- ➔ Stringent standards for evacuation and fire safety ( NFPA 130 )
- ➔ Extension of the platforms moving northwards
- ➔ Widening of island platform
- ➔ Smoke extraction, camera surveillance, dynamic evacuation guidance



# Bruxelles-Midi

## PLAN Station hall and travelcenter



Station hall = NMBS-Holding  
“Diamant” = Brussels Airport company



# BRUSSELS INTERNATIONAL AIRPORT STATION: EXTENSION

## STATION HALL

- ➔ Makes one entity with vertical circulation zone "Diamant" from Brussels Airport
- ➔ Maximal transparency without dead corners
- ➔ Plane floors everywhere, also in "Diamant"
- ➔ Separate travel centre with service rooms
- ➔ Nobel, durable, non flammable materials
- ➔ Concession surfaces, toilets, new transparant lifts to platforms
- ➔ Large evacuation routes

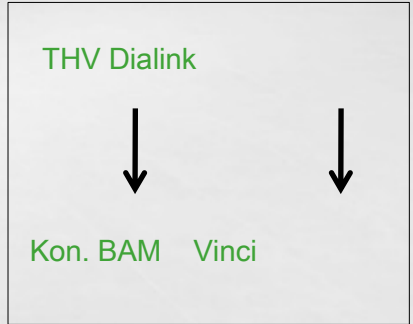
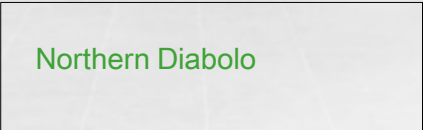


# BRUSSELS INTERNATIONAL AIRPORT STATION: EXTENSION

## DIABOLOPROJECT

### site Diabolo: PPS

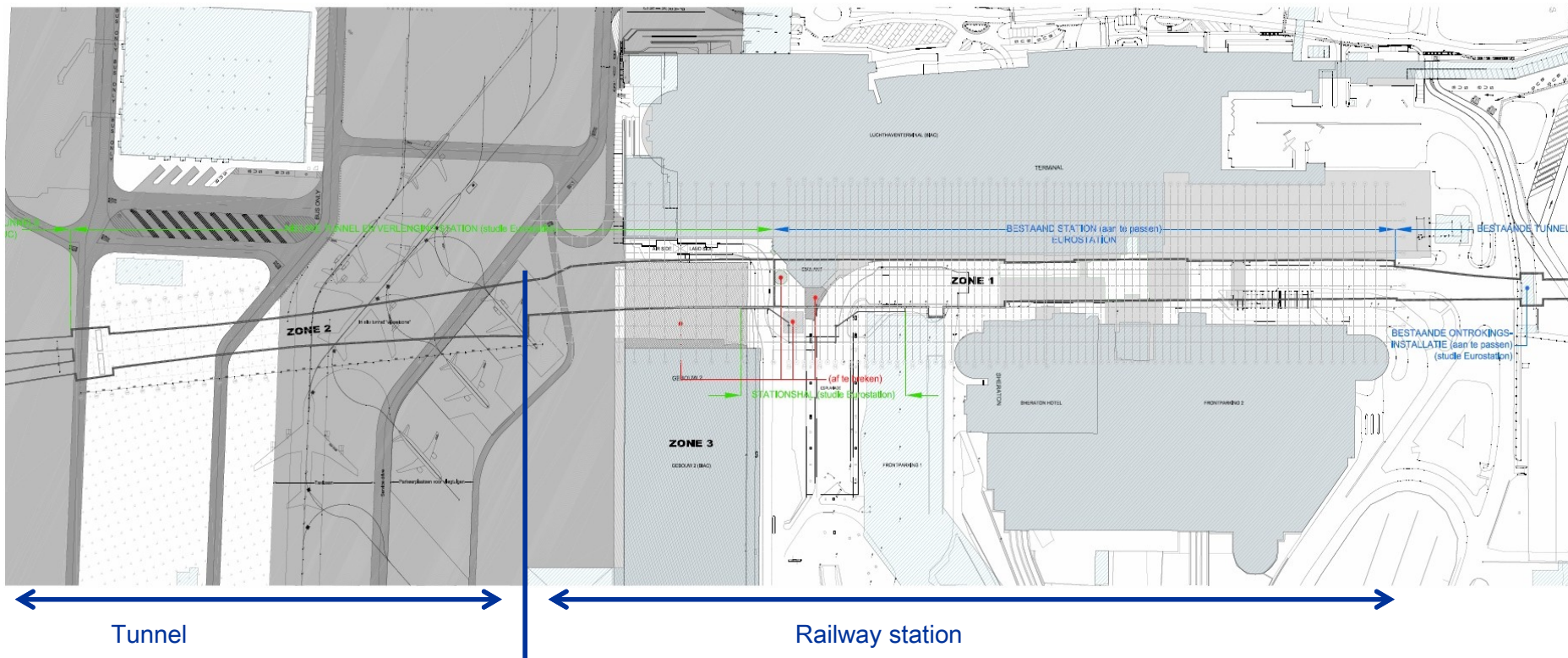
(Public Private Partnership)



Partners of Infrabel: NMBS – Holding, Brussels Airport Company

# Bruxelles-Midi

## PLAN Tunnel and Railway station





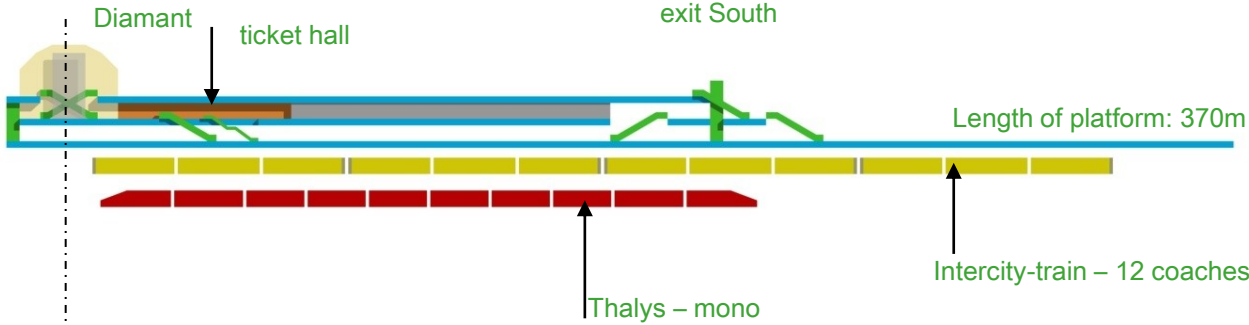
# Bruxelles-Midi

## LONGITUDINAL SECTIONS

### Extension of the railway station

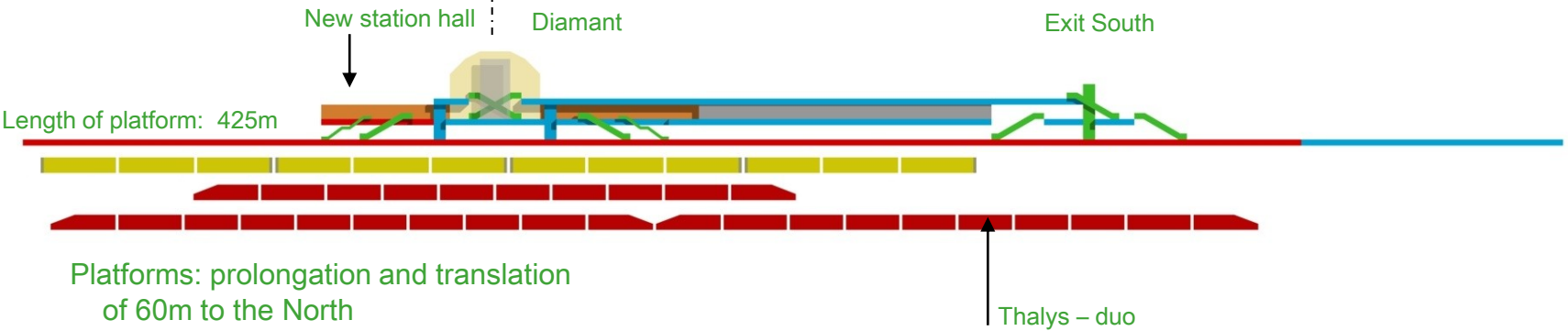
#### “OLD” SITUATION

3 dead-end railtracks



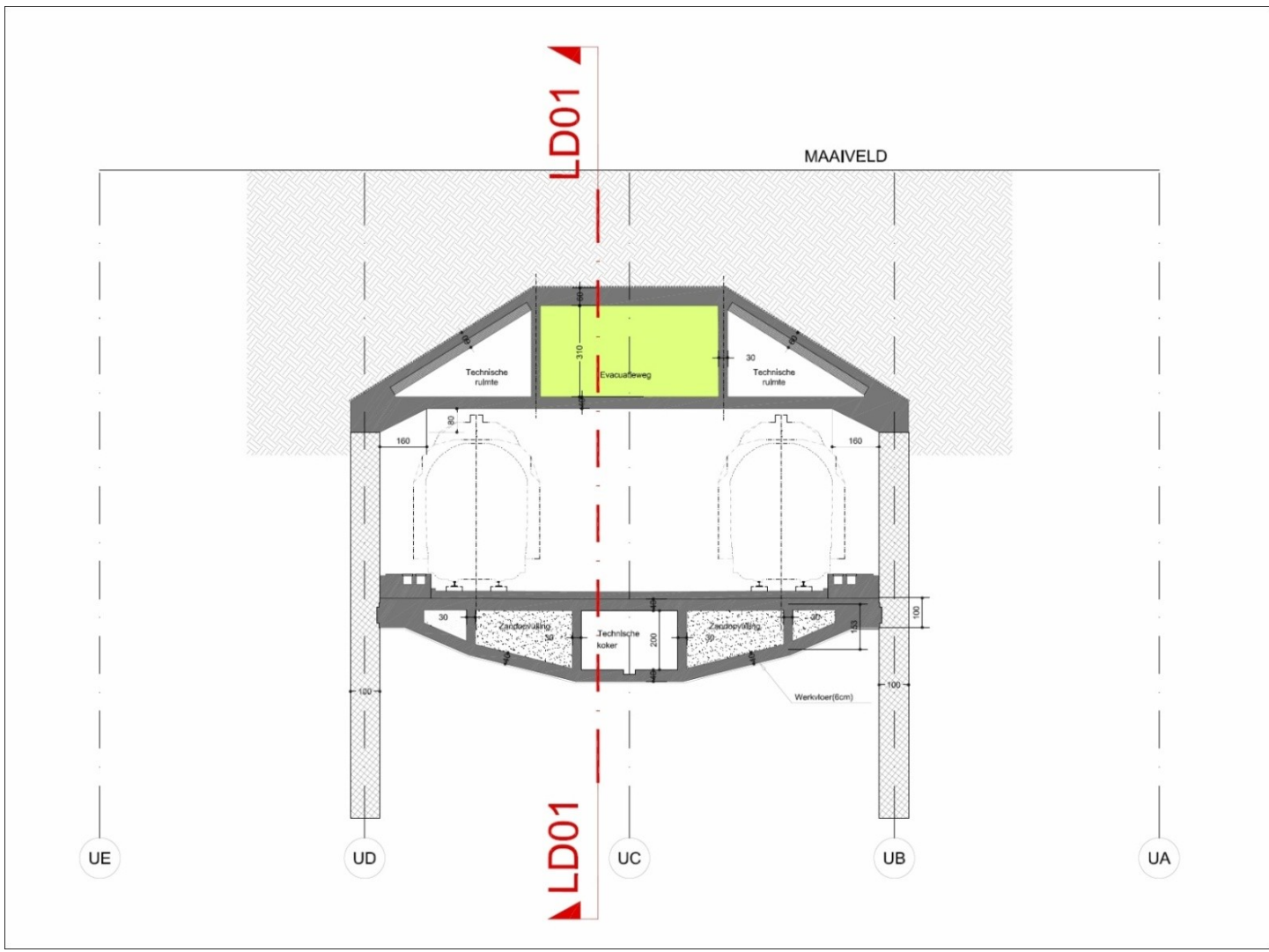
#### DIABOLOPROJECT

3 ongoing railtracks



# Bruxelles-Midi

## CROSS SECTION Tunnel in the "wisselzone"





# Bruxelles-Midi

CONSTRUCTION SITE 2009  
Prolongation of the station







# Bruxelles-Midi

NEW PLATFORMS  
And view to the new tunnel



# Bruxelles-Midi

## NEW PLATFORMS





# Bruxelles-Midi

## NEW STATION HALL



# Bruxelles-Midi

## NEW STATION HALL





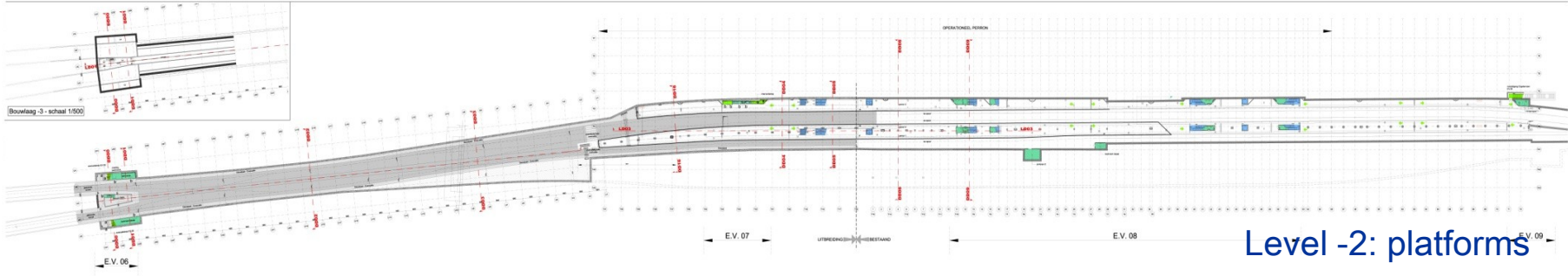
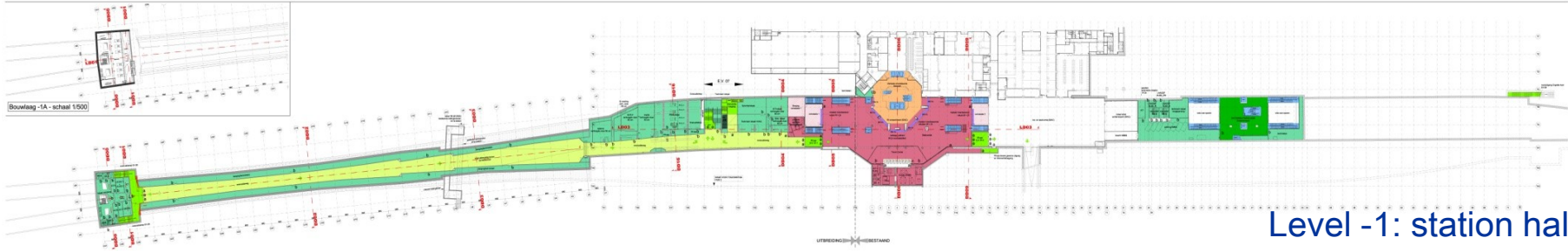
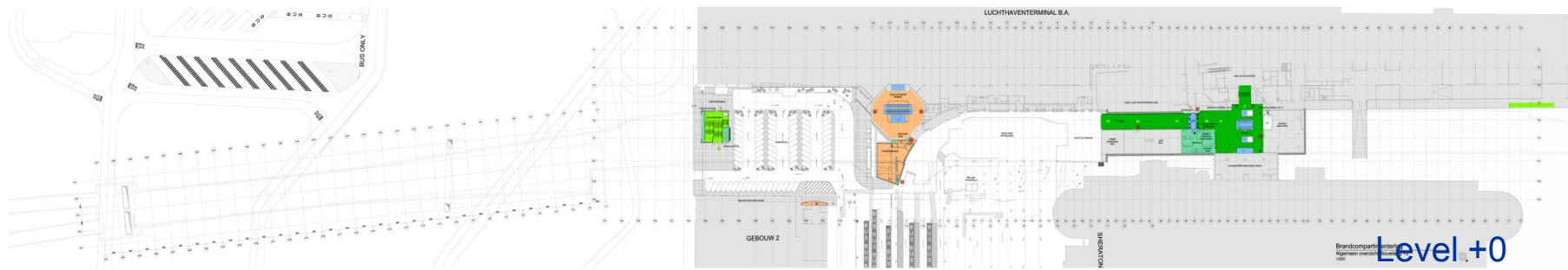
# Bruxelles-Midi

## NEW TRAVELCENTER



# Bruxelles-Midi

## GENERAL VIEWS





# Bruxelles-Midi

## PLATFORMS

As seen from tunnel





# Bruxelles-Midi

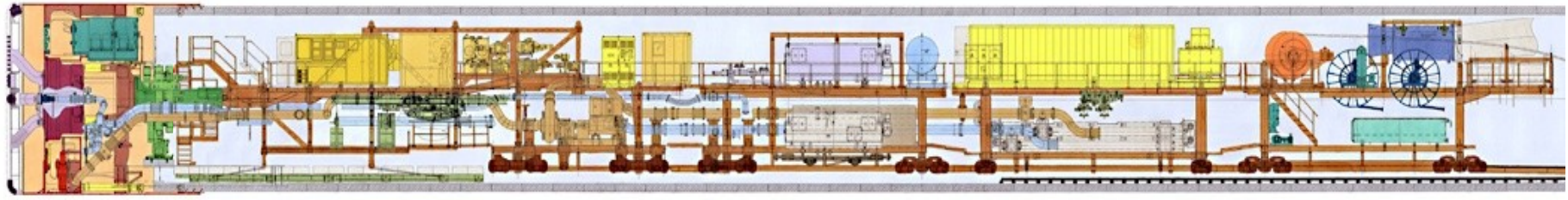
## BORING SHIELD





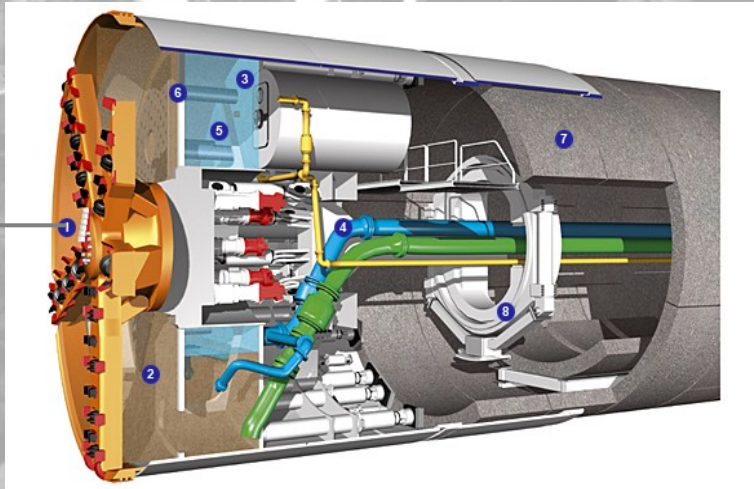
# TUNNEL BORING MACHINE

total length = 66 meter



Boring shield  
(5,9 meter)

diameter  
(8,3 meter)





# Bruxelles-Midi

AFTER THE BORING





# Bruxelles-Midi

“WISSELZONE”







# Bruxelles-Midi

TRAIKTUNNEL

Underneath runway of the airport





## DIABOLOPROJECT

### BRUSSELS INTERNATIONAL AIRPORT STATION: EXTENSION station and part of tunnel



# Bruxelles-Midi



## 1. Contexte

1.1. Tour d'horizon

1.2. Protocol de coopération

1.3. MasterPlan

## 2. Le nouveau visage de la Gare du Midi

## 3. Les projets



## Facts & Figures

- Gare internationale + une entrée principale de Bruxelles
- 2<sup>e</sup> gare de la Belgique
- à 15 minutes à pied de la Grande Place
- Nœud multimodal (60% des voyageurs par train emploient d'autres moyens de Transport Public)
  - > 100.000 voyageurs train/jour
  - > 1.150.000 voyageurs métro/mois (mars 2011)
  - > 150.000 visiteurs/jour dans la gare du Midi



plan ADT-ATO



image CONTRAT DE QUARTIER ROUPPE



image DAVID



image HIX



image HIX









### Le ‘Protocol de Coopération’ du 29 juillet 2008

Région de Bruxelles Capitale – Saint-Gilles – Anderlecht - SNCB-Holding – Eurostation

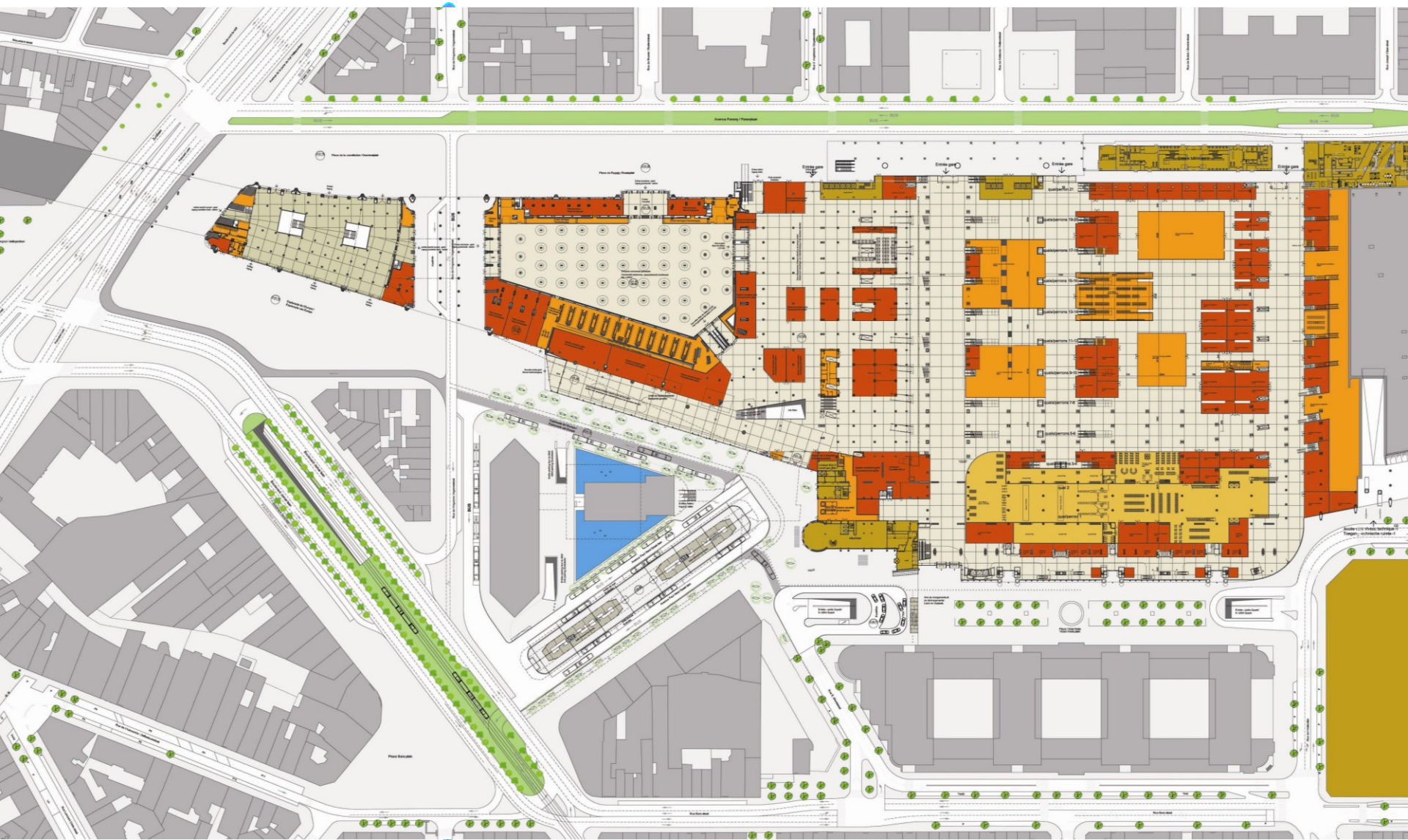
*« ...Les partenaires de ce ‘Protocole’ sont conscients du rôle international que doit jouer la gare du Midi et considèrent qu’ils doivent combiner leurs efforts et leurs moyens respectifs pour faire de la gare du Midi et de ses abords une entrée de la ville digne de la capitale de l’Europe et une vitrine pour Bruxelles et la Belgique... »*

### Rédaction d’un MasterPlan

Par Eurostation/EuroImmoStar en collaboration avec Ateliers Jean Nouvel, Alain Marguerit, Salvatore Bono; et après consultation d’ARSIS, Guido Stegen, TRITEL en bien d’autres services et administrations.

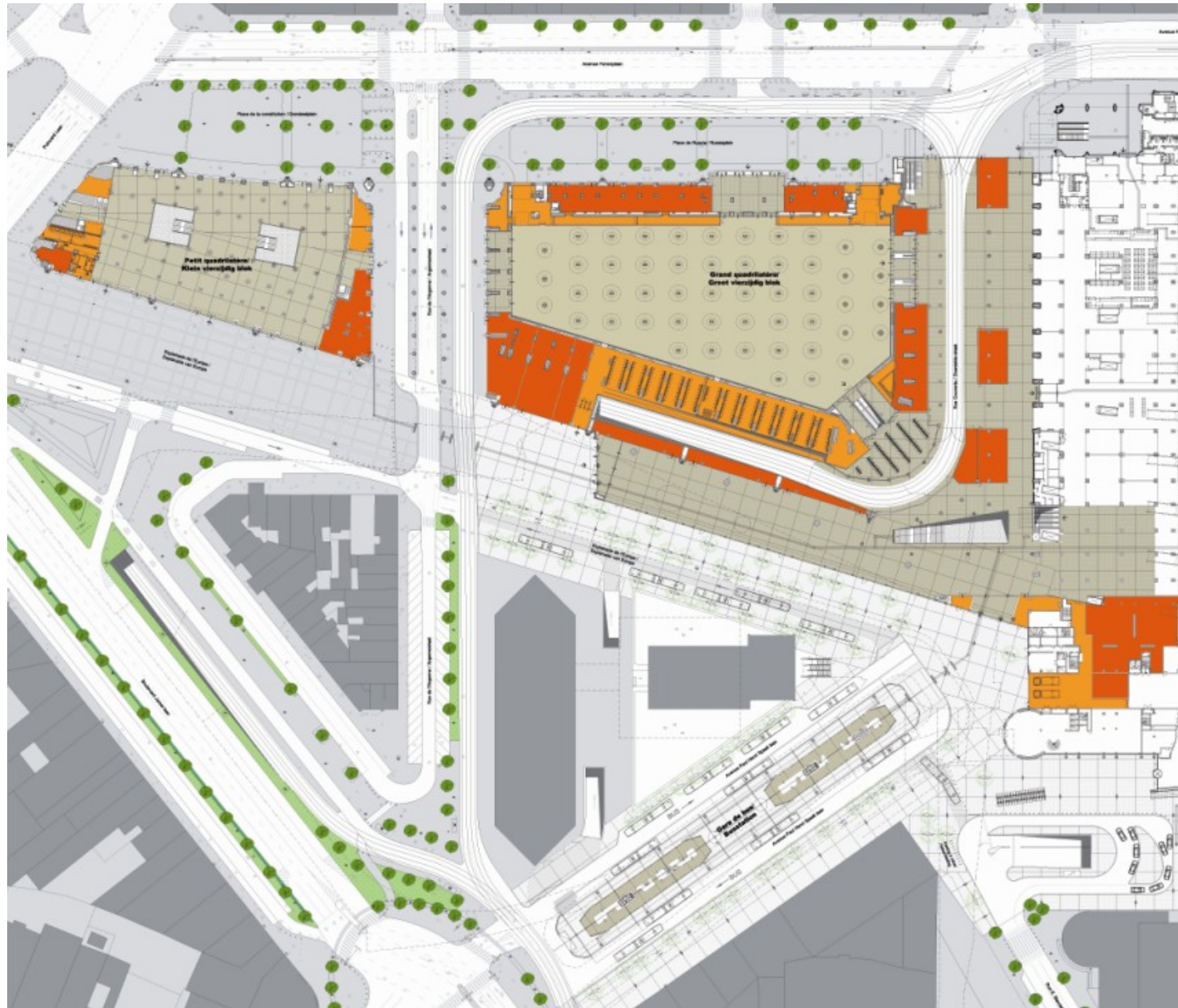
Le MasterPlan approuvé contient les objectifs suivants:

- rétablir les relations entre les différents quartiers (une promenade agréable entre le centre-ville et la gare)
- rétablir les axes historiques reliant les quartiers (structure urbaine diversifiée et claire)
- renforcement de l’espace public et du réseau spatial (rendre le cadre de vie lisible et agréable)
- tendre vers des constructions extraverties (bâtiments transparents avec rez attrayants et multifonctionnels)
- créer un lieu de vie et de logements agréables (l’espace public comme entre les fonctions de vie et de mobilité)
- regrouper les flux de mobilité et améliorer l’intermodalité (offrir aux voyageurs une claire perception de l’offre)

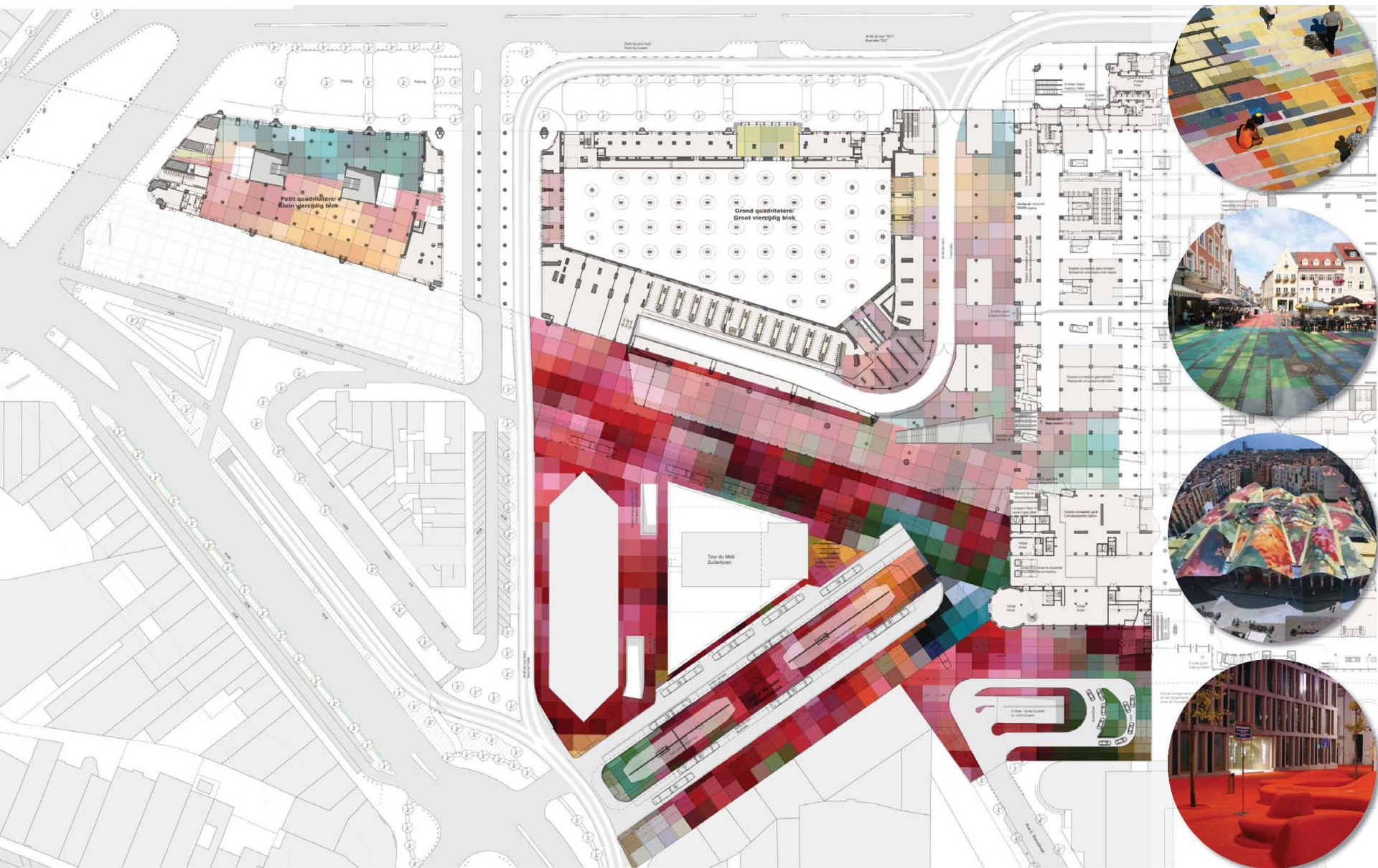




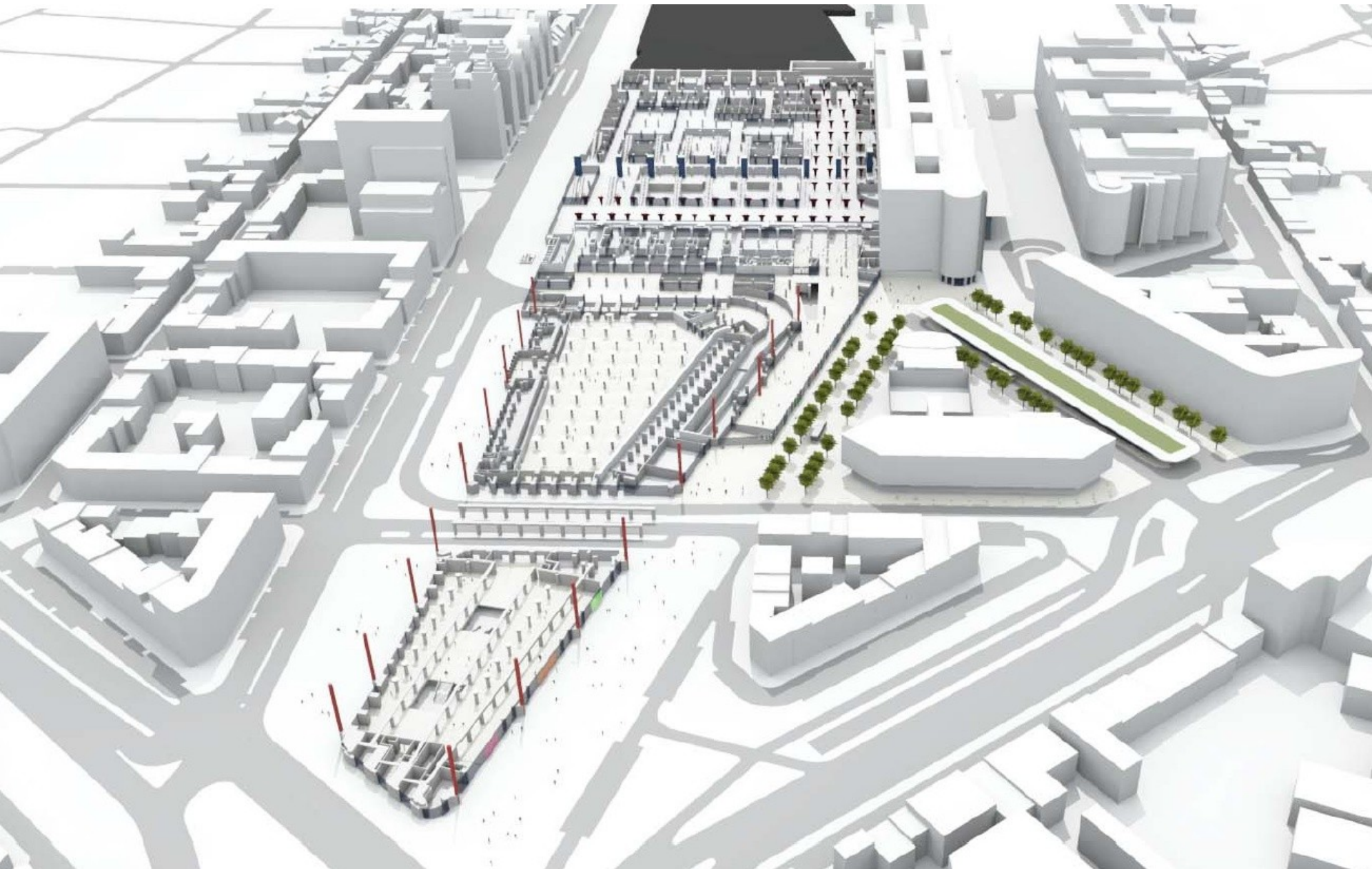
1. Contexte
2. Le nouveau visage de la Gare du Midi
3. Les projets



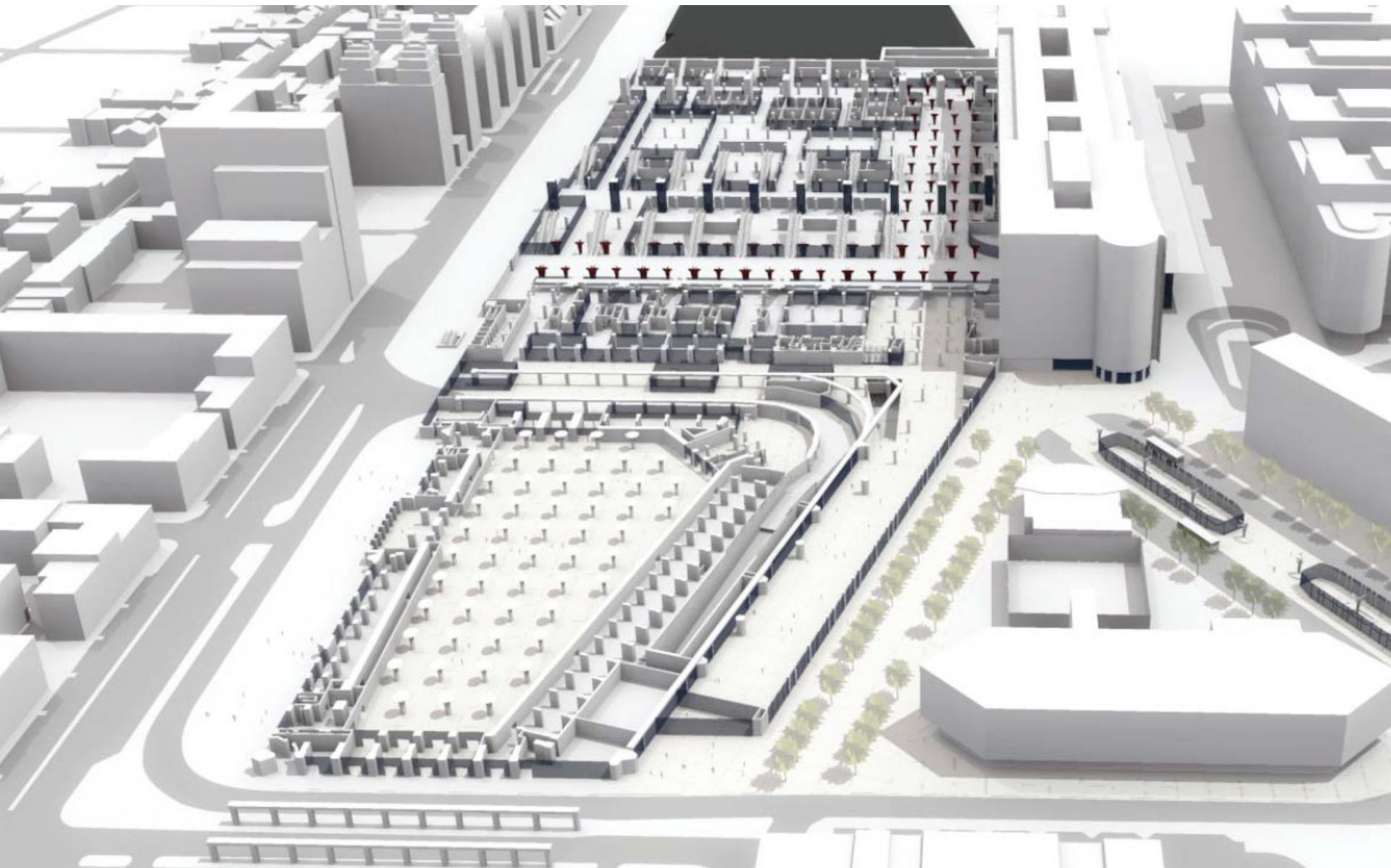


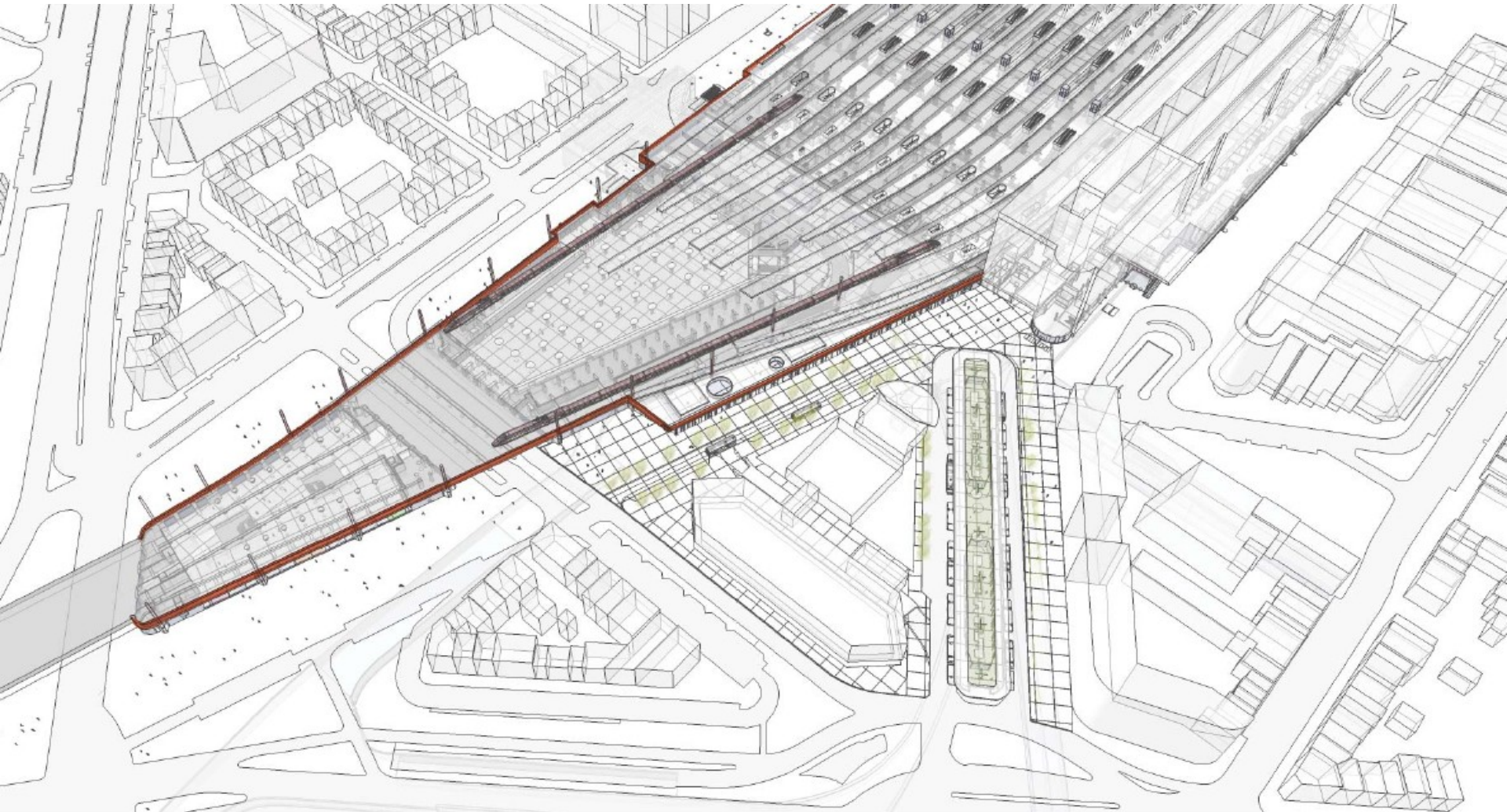




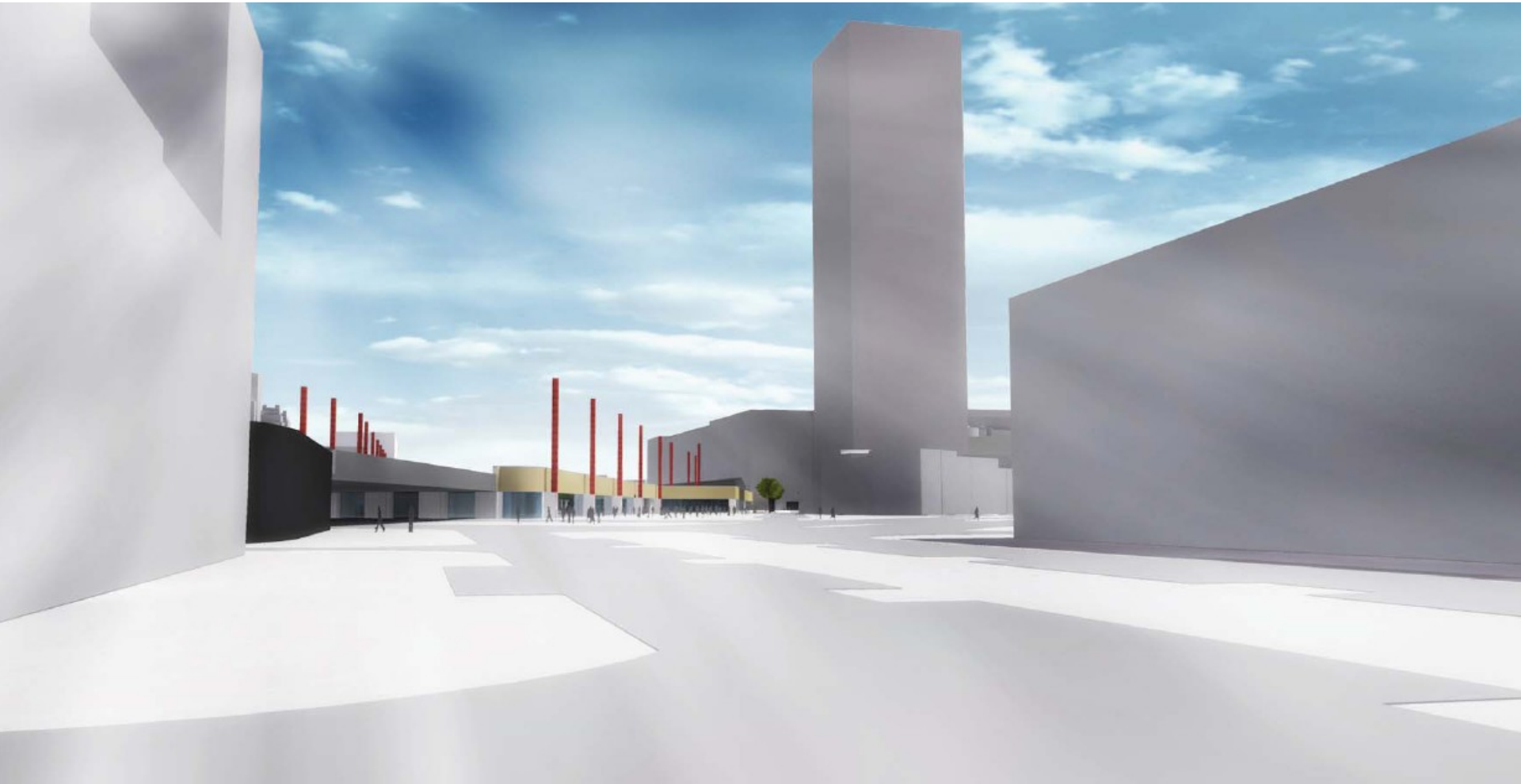






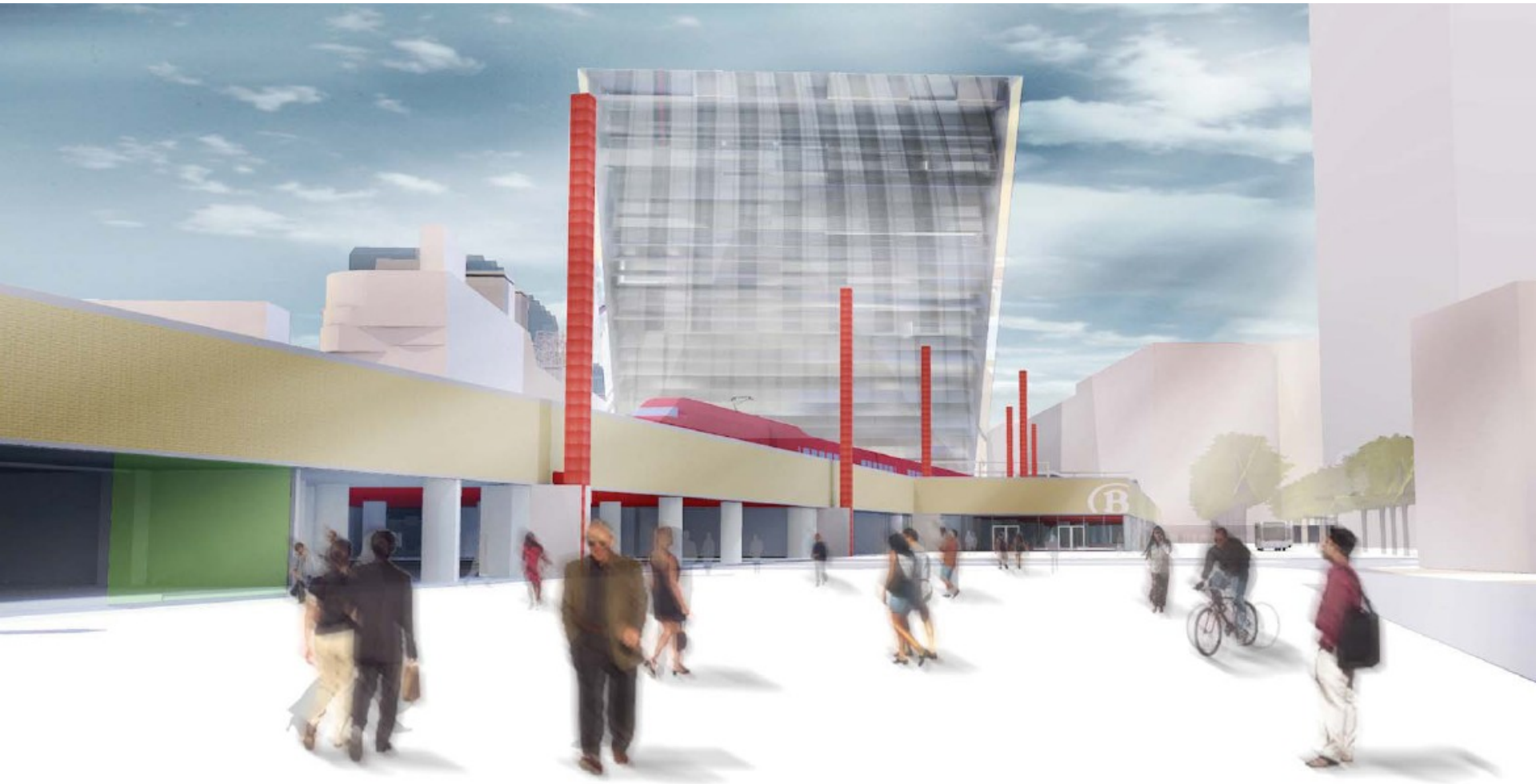
























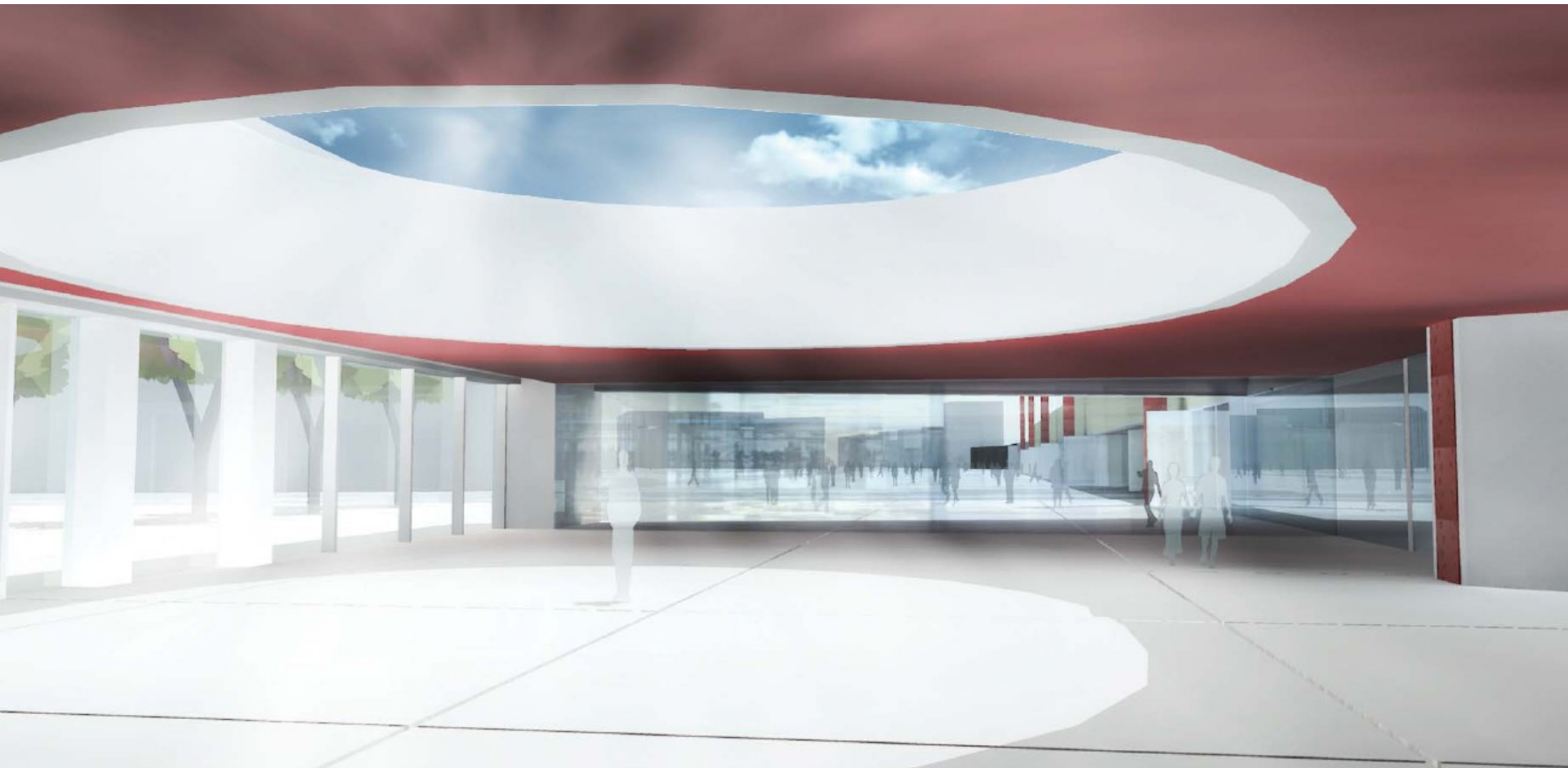


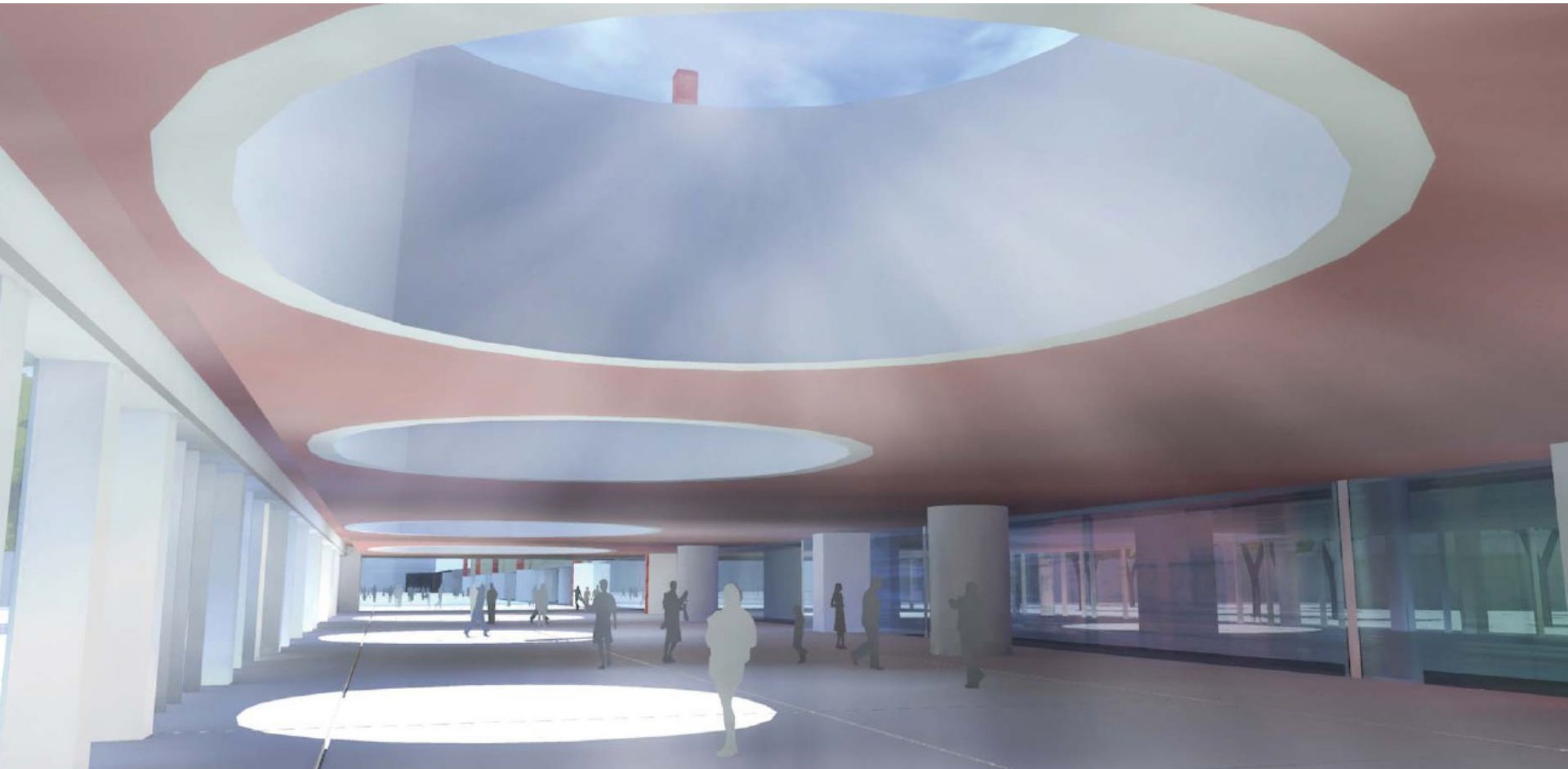












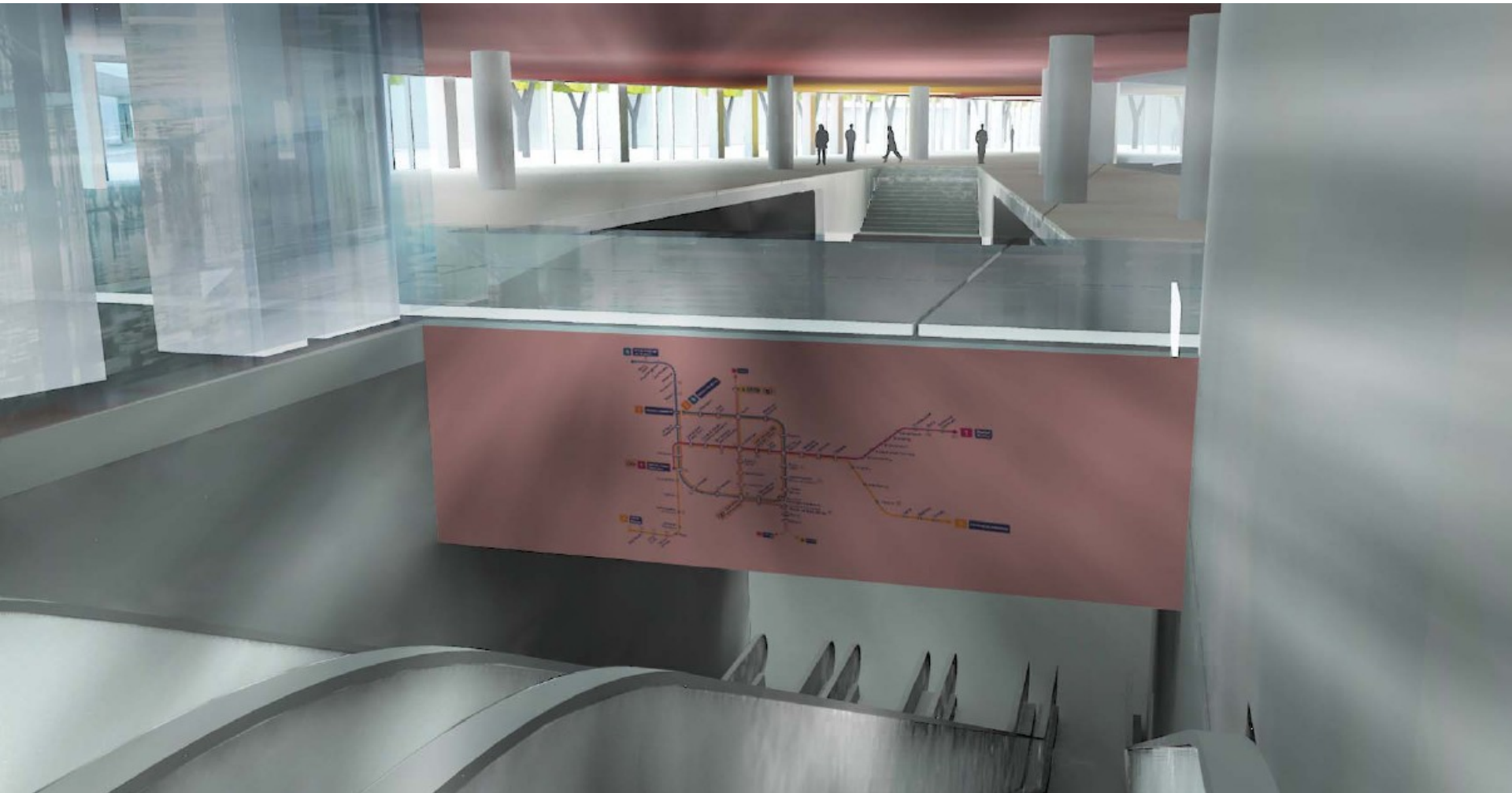






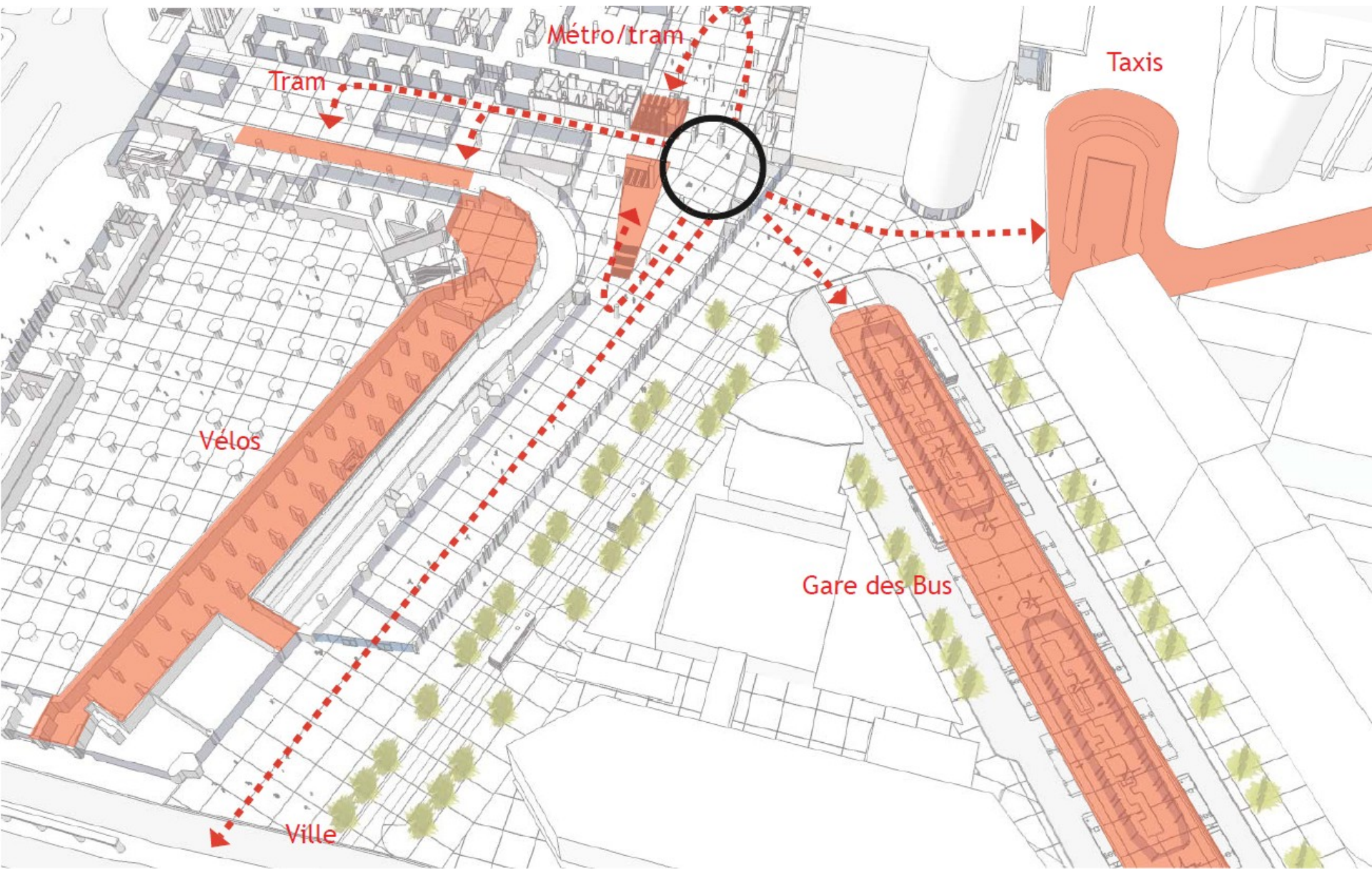




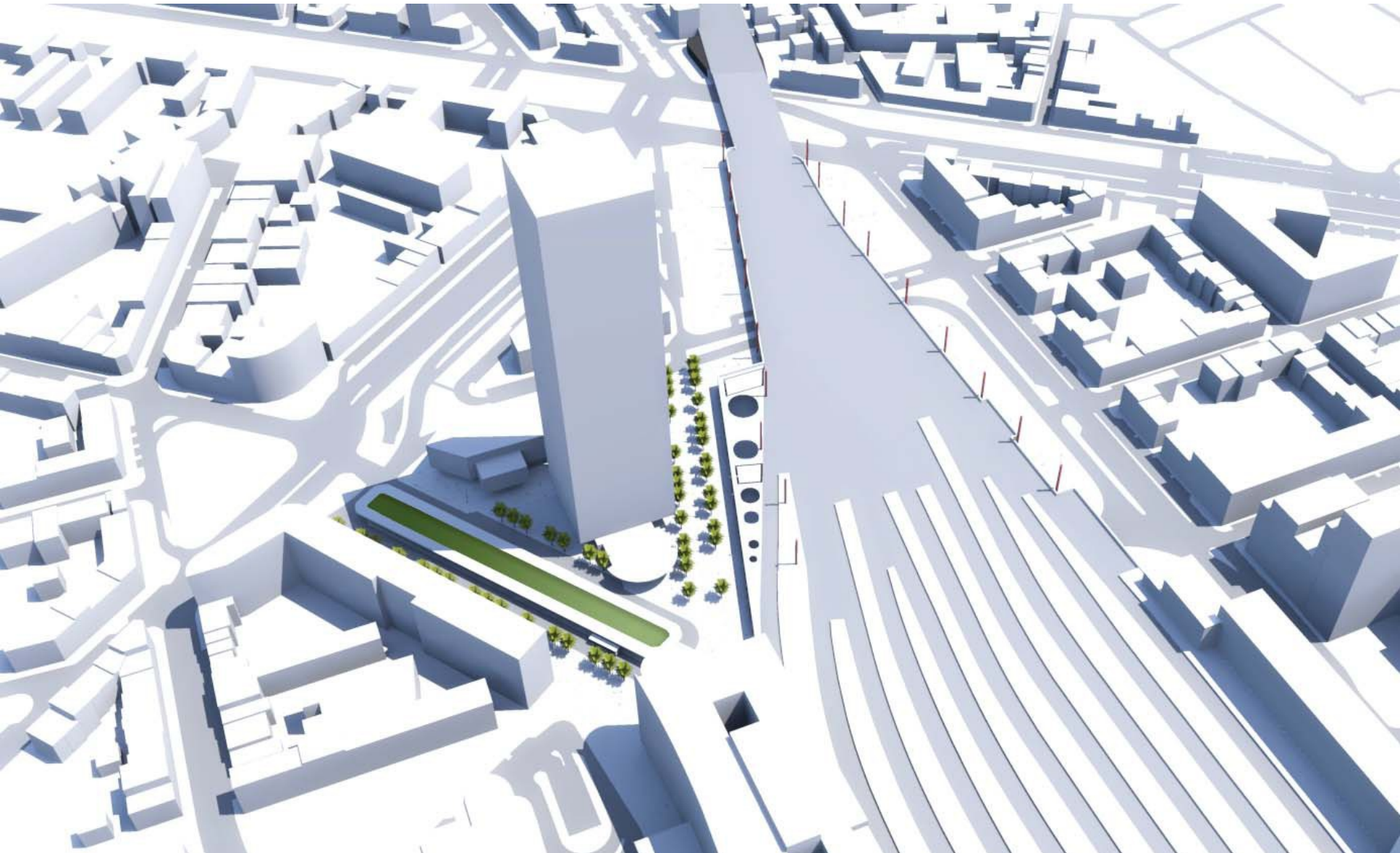




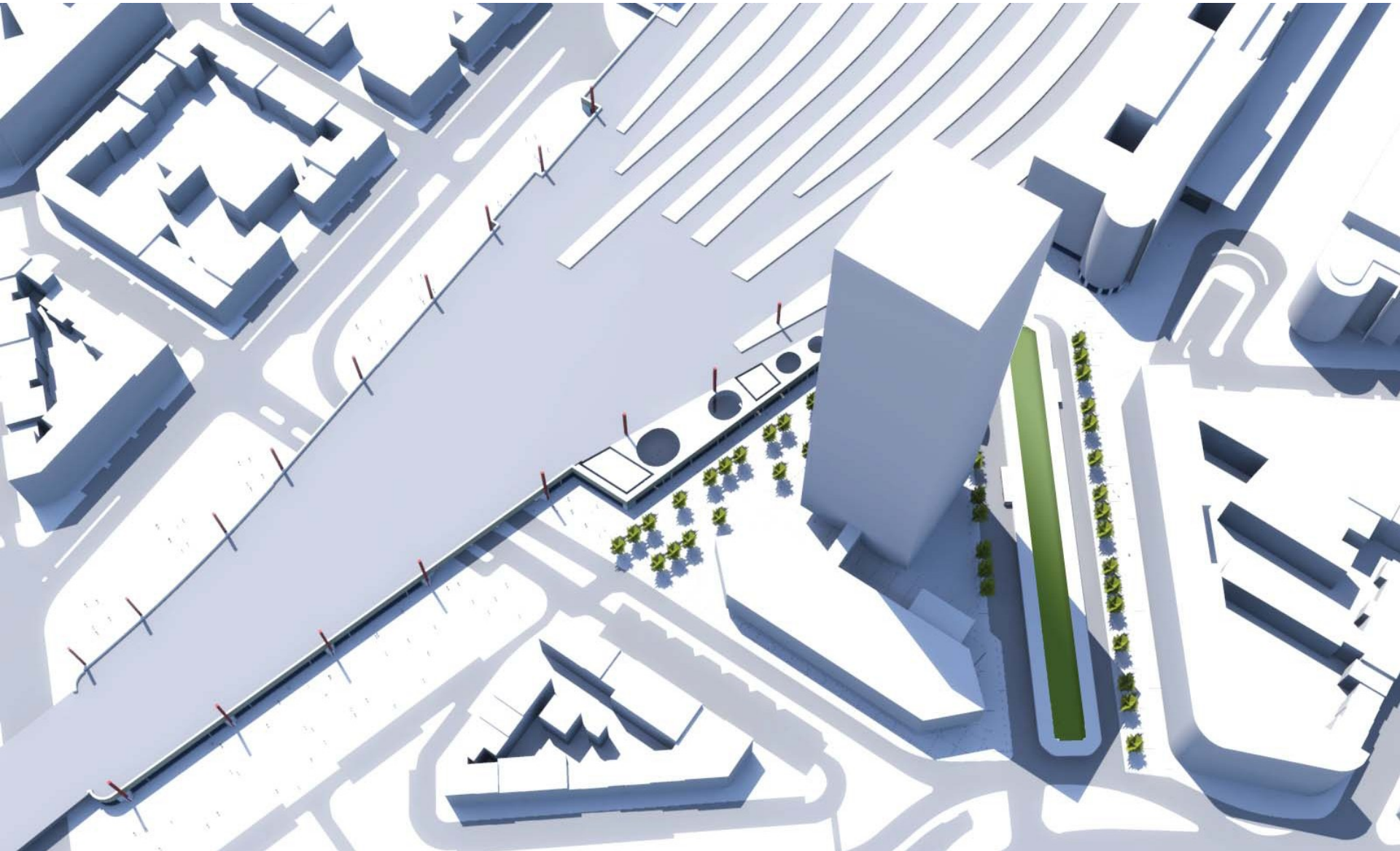








Future gare de bus



Future gare de bus

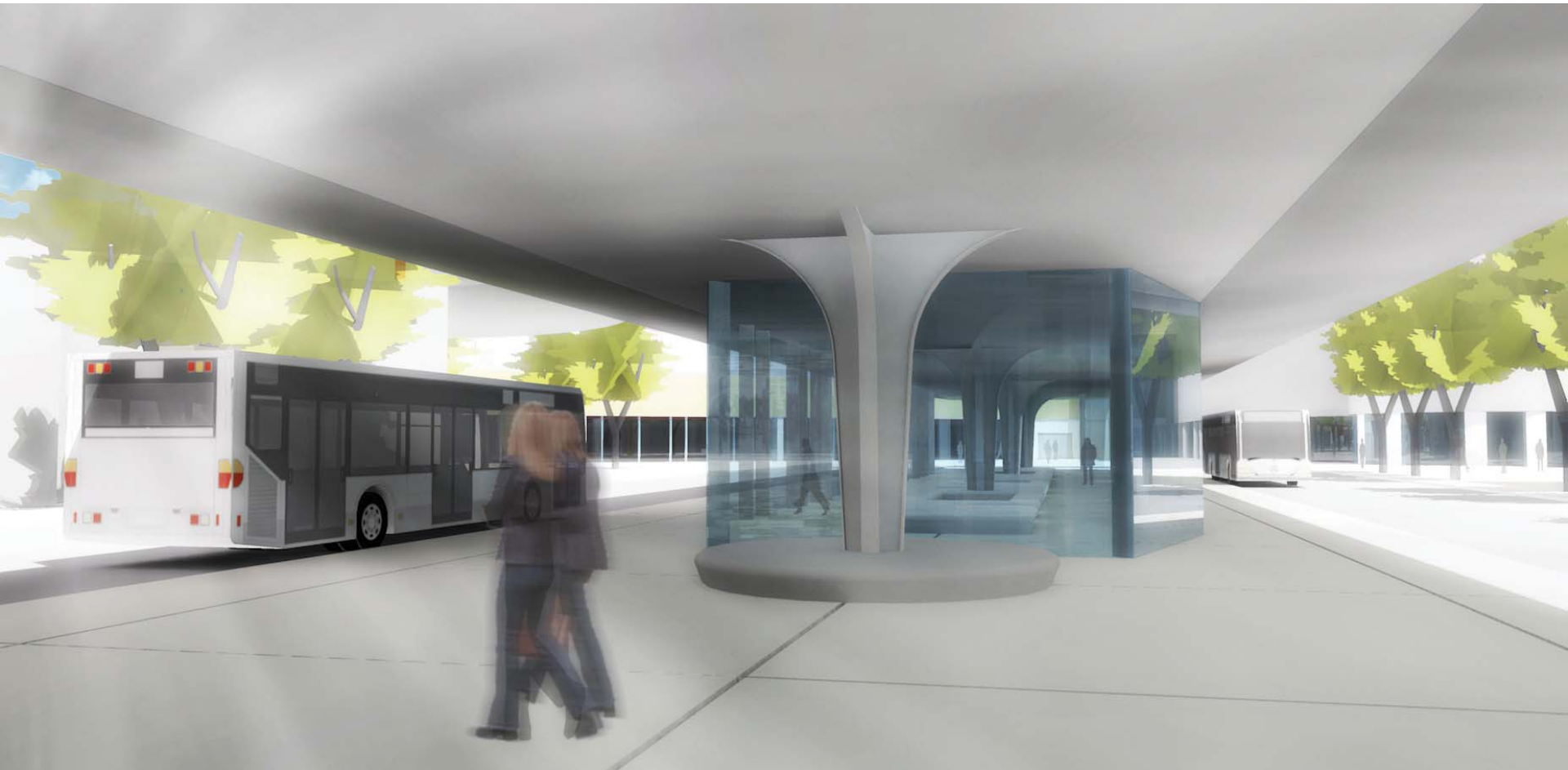




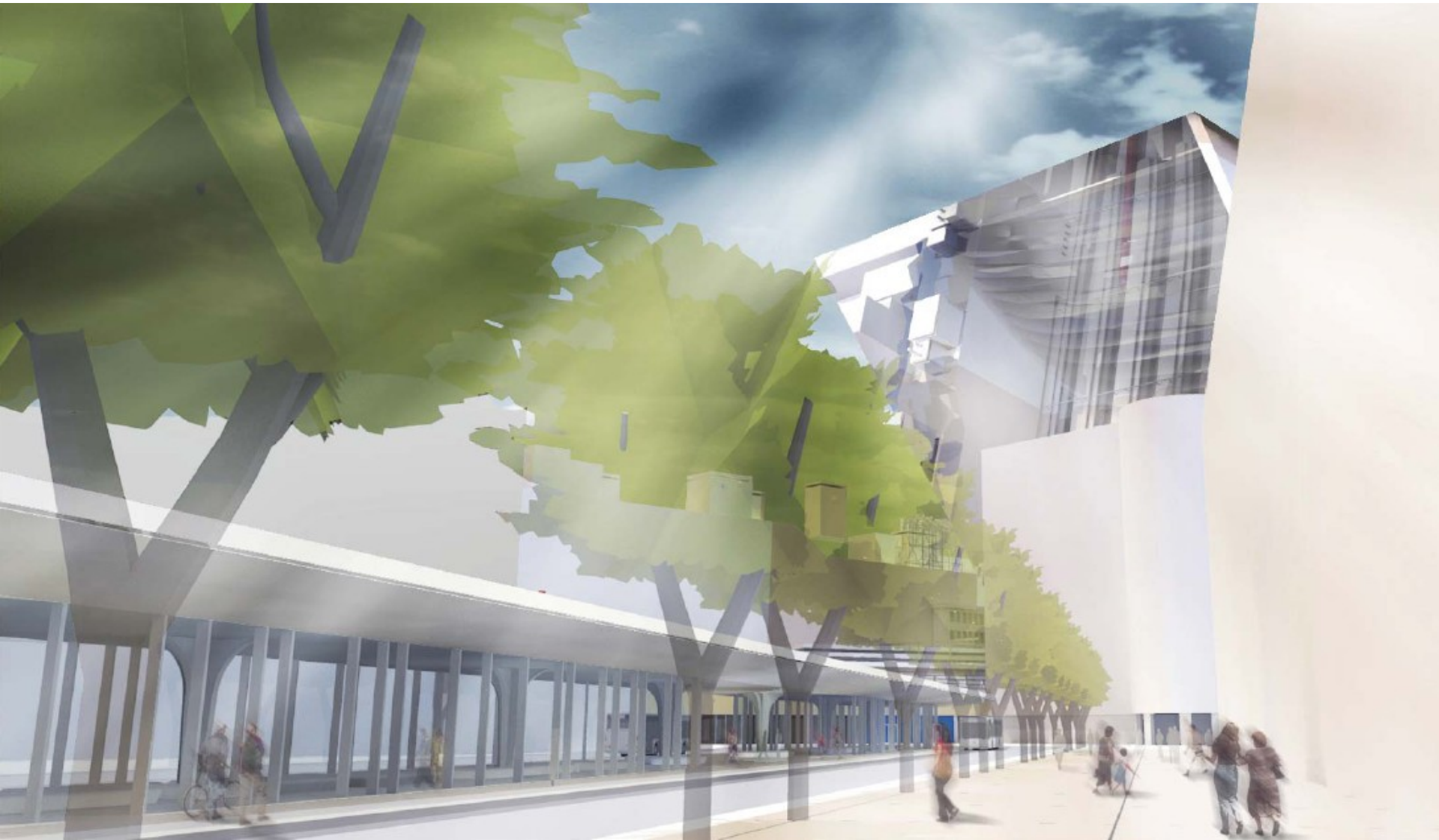


Avenue Paul-Henri Spaak





Future gare de bus





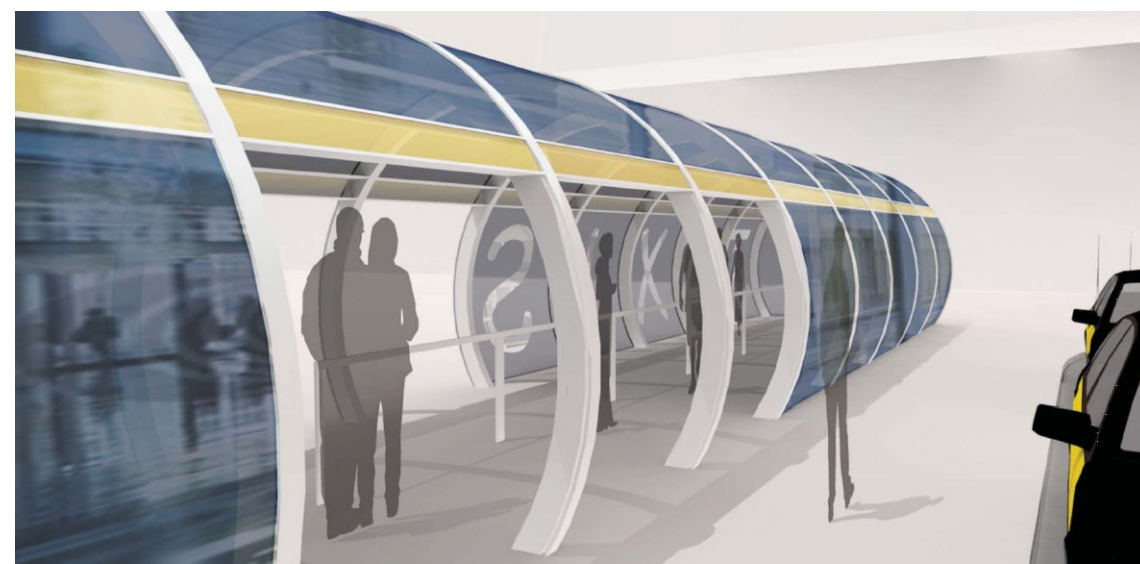


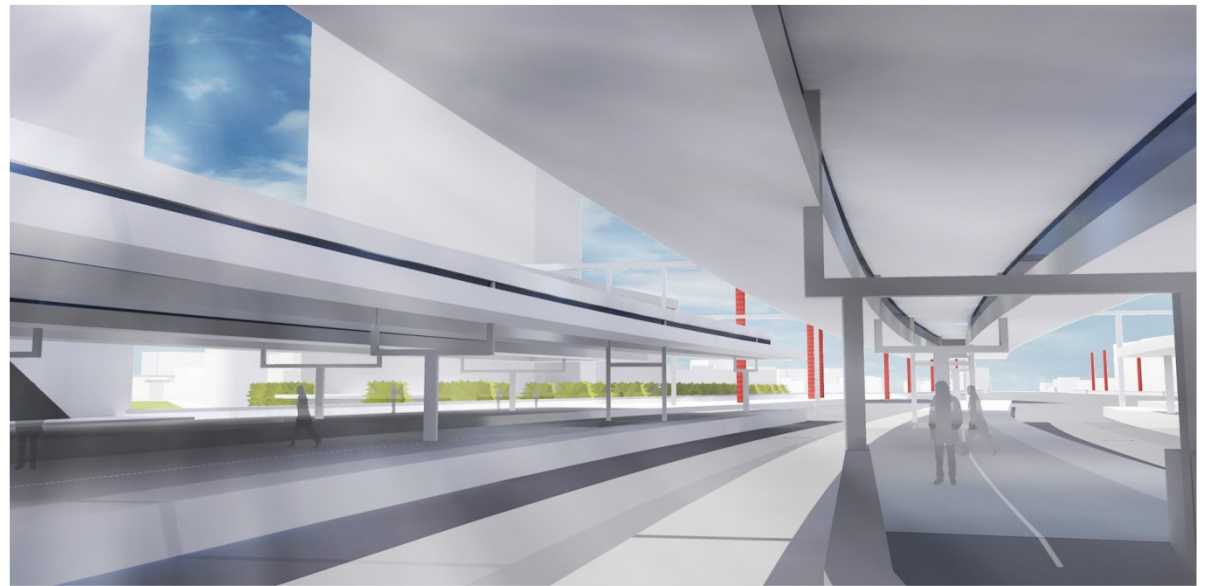
**Taxis: situation future**



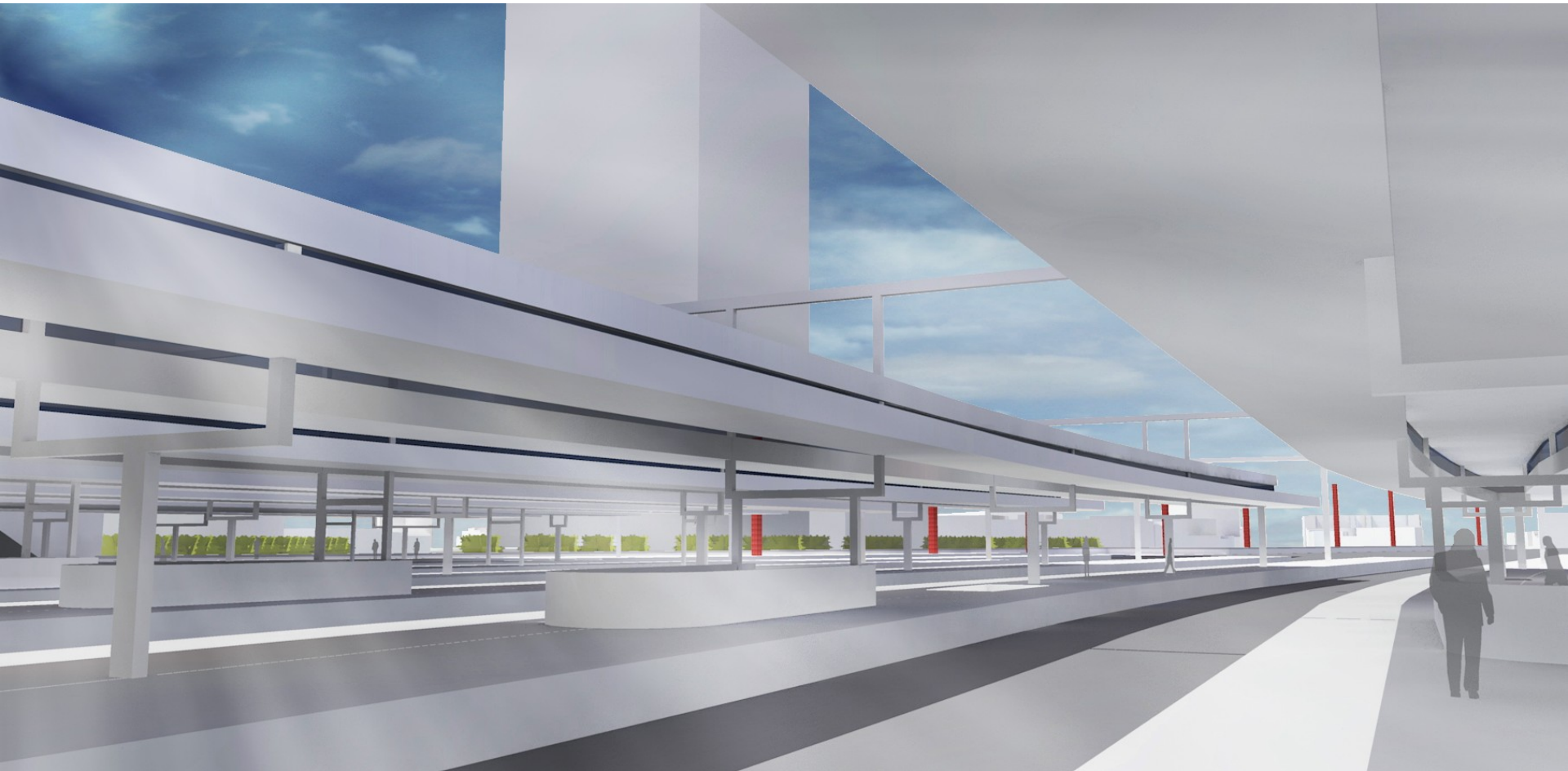
**Taxis: situation future**

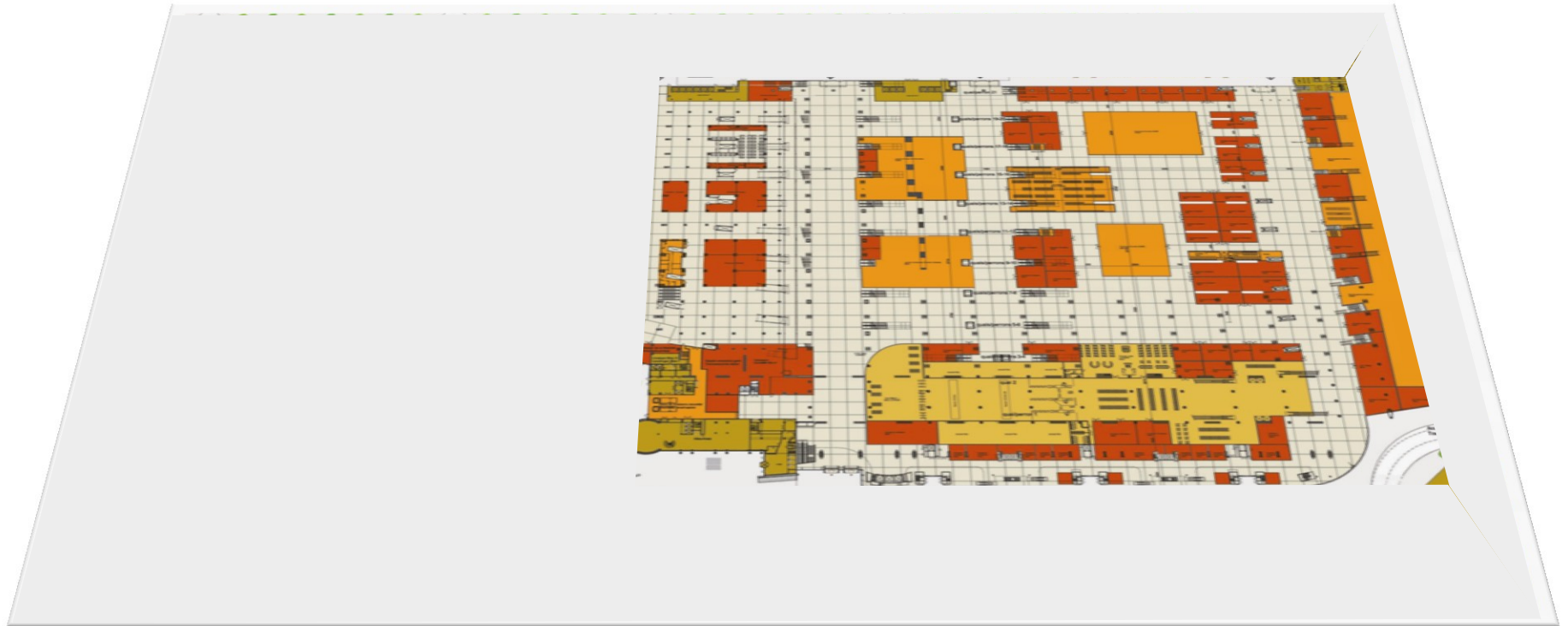










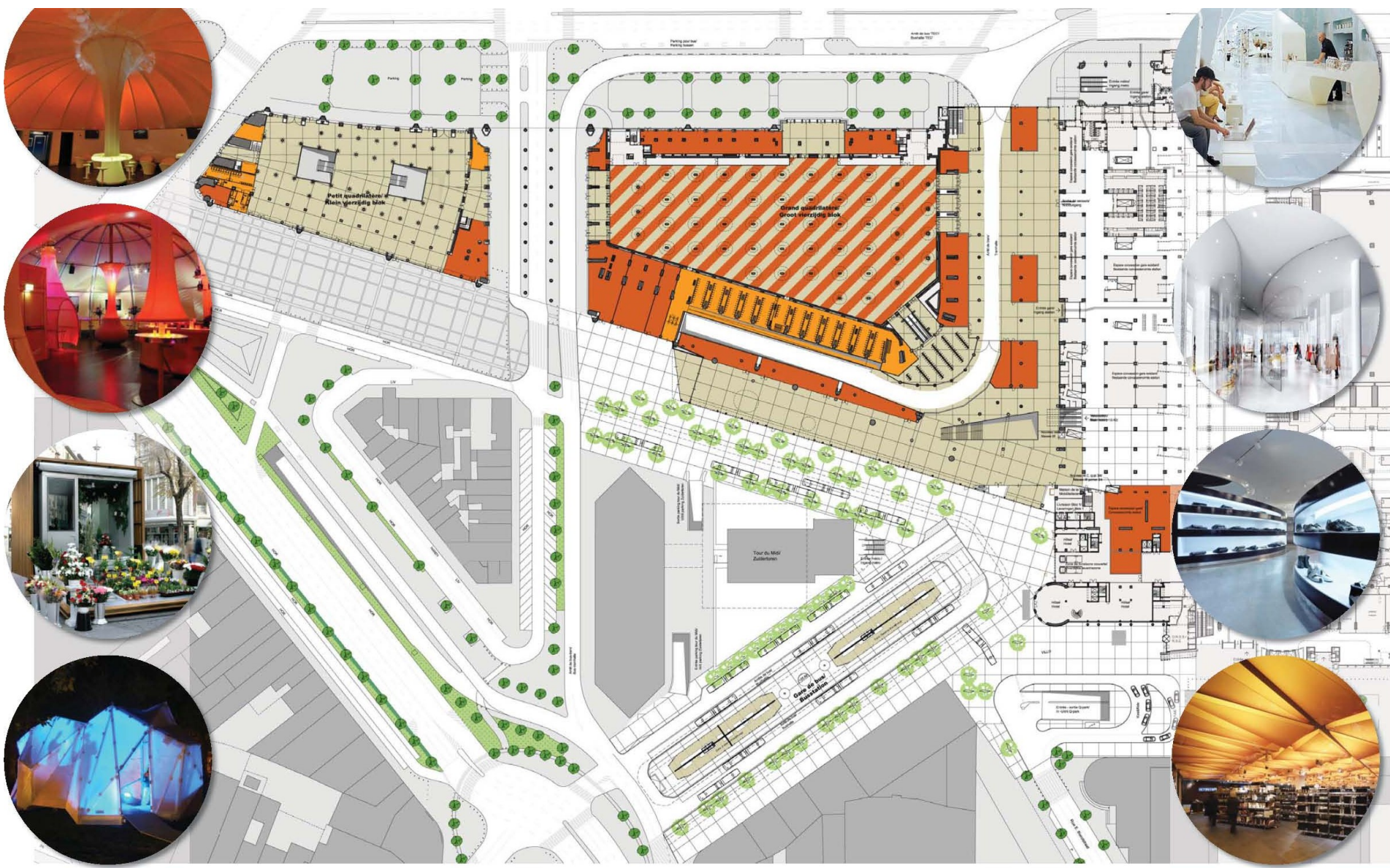




1. Contexte
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### Marché du midi: situation existante

