

Architecture

Research

Engagement

Post-carbon



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Architecture

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AREP Group

Founded in 1997, AREP Group is a multidisciplinary practice that brings together a wide range of expertise, including architecture (through our subsidiary AREP Architectes), urban planning, engineering, design, people flow modelling and management, as well as project definition and management.

We provide practical solutions to the ecological emergency through our exclusive EMC2B framework. We contribute to research, public dialogue and shifting practices in construction, mobility and land planning.

With more than 1,000 employees from 40 different nationalities, AREP Group is present in France, China, Vietnam and Switzerland, and carries out projects across Europe and worldwide.

Our manifesto

Let's Invent!

We are at a watershed moment in history. Our era represents a tipping point for what is called the Anthropocene. Ecological emergency is part of our reality; awareness of this lies at the heart of AREP's mission. We face enormous challenges: global warming, the collapse of biodiversity, the scarcity of non-renewable resources.

For more than 25 years, we have taken on the responsibility for conceiving projects and providing consulting services and helping our clients through the environmental transition. Our know-how and projects are at the interface between construction and mobility, two sectors that account for more than half of all greenhouse gas emissions. We are a multidisciplinary and international practice. A subsidiary of SNCF Gares & Connexions, AREP group is rooted in the railway industry.

We are proud of this unique legacy. Our global team comprises more than 1,000 professionals of 40 nationalities whose unique blend of specialties embodies our multidisciplinary culture: conception, urban planning, design, engineering, programming, consulting services and project management. We operate both in France and internationally, especially in Europe and Asia, in China and Vietnam where we are firmly established.

With more than 500 projects underway each year, we pride ourselves in spreading our expertise globally, by providing, at all scales and stages of projects, practical solutions designed to respond to the ecological emergency. We have joined forces to create exemplary projects, which meet the real needs of our clients, of the project's current and future end users, as well as of its surrounding environment. Public interest is one of AREP Group's founding values. People and social aspects lie at the heart of our creative process. Our teams pay close attention to uses and to ensuring that the project is perfectly integrated into its historical context and cultural and social environment.

We are actively involved in advocacy. To address climate emergency and the biodiversity crisis, we help fuel the public debate and transform practices. Curiosity is our driving force, and we relentlessly question our ways of doing things. With humility, we are learning from actors who experiment with alternative modes and who build bridges between those traditionally involved in the project production process. Here at AREP, we consider ourselves as catalysts, as an incubator for this ecosystem, a laboratory of interactions with all these actors, and particularly with small enterprises at the forefront of ecological and social issues.

We are active in (re)building a resilient and sustainable world, even if this sometimes involves radical proposals. This revolution concerns landscape as much as conception, design, engineering as well as programming, project management and consultancy for project owners.

To this end, we have developed a unique approach: "EMC2B". We question, scrutinize and manage our operations through this prism and combine the most advanced modelling methods and common-sense approaches in order to provide simple and frugal solutions that address the following five challenges: energy, materials, carbon, climate and biodiversity.

Finally, we foster exploration: Research and innovation are at the core of our corporate DNA. We reject ready-made ideas of sustainability. We prefer the creativity brought about by each situation in order to promote elegant and sober, efficient and long-lasting solutions. We are heritage experts and as such, we prefer to enhance and transform what is already there through low-tech solutions. Our scientific and technical background enables us to conceive and operate in infrastructural and industrial projects.

Every day, more than 1,000 employees provide practical solutions tailored to the needs of our clients and aimed at meeting the challenges of the ecological emergency.

Our approach

The EMC2B way

We act to bring about the ecological transition.

To achieve this goal, we have developed a unique approach, EMC2B, which guides through the design and analysis of our projects. EMC2B stands for energy, materials, carbon, climate and biodiversity.

EMC2B is the framework we use to make our post-carbon approach operational. EMC2B evaluates the ecological footprint of a project, be it a very small-scale project (for example, street furniture) or a regional scale project (when we assist local authorities with their transition strategy, as in Luxembourg or the Greater Annecy area).

EMC2B is a simple metric that allows us to assess the five types of transition that any project must address. Using a set of values, we identify, for example, the quantity of materials used and their origin (materials), greenhouse gas emissions (carbon), energy consumption and production (energy), albedo (climate) or the number of trees preserved or planted (biodiversity). This approach is open, free to share, because we all share a common goal: to preserve the liveability of cities, regions and the planet.

Energy

- Promote sufficiency and efficiency and question comfort with regard to real needs.
- Encourage bioclimatic construction systems throughout the process, from the initial construction stages to the finest details.
- Understand and make the most of the physical constraints of the site before turning to technology.
- Use passive systems wherever possible.
- Identify and assess the low-tech solutions that could be employed and the associated costs (construction-operations-maintenance) and deadlines.
- Make the best efforts to wean off fossil fuels and energy over-consumption, promote renewable and diffuse sources of energy.

Material

- As early as the programming stage, question uses and plan spaces so that they occupy the right footprint.
- Choose the performance of the materials according to their use (e.g. the performance of glazing) and the life span of the structure.
- Favor solutions that best preserve the existing structure.
- Favor the use of less materials, easy implementation and maintenance.
- Halt the extraction of non-renewable resources, build "light" by turning mainly to reuse, bio-sourced and earth-sourced materials.
- Minimise the weight of the various elements and the quantity of materials and components by using appropriate building modules.

Carbon

- Draw on carbon weight to guide architectural choices from the outset.
- Use whenever possible materials that reduce the carbon footprint of the project, store biogenic carbon, and limit to a minimum carbon emissions.
- Use the "carbon payback time" to adjust design choices and consider the obsolescence period as an essential parameter.

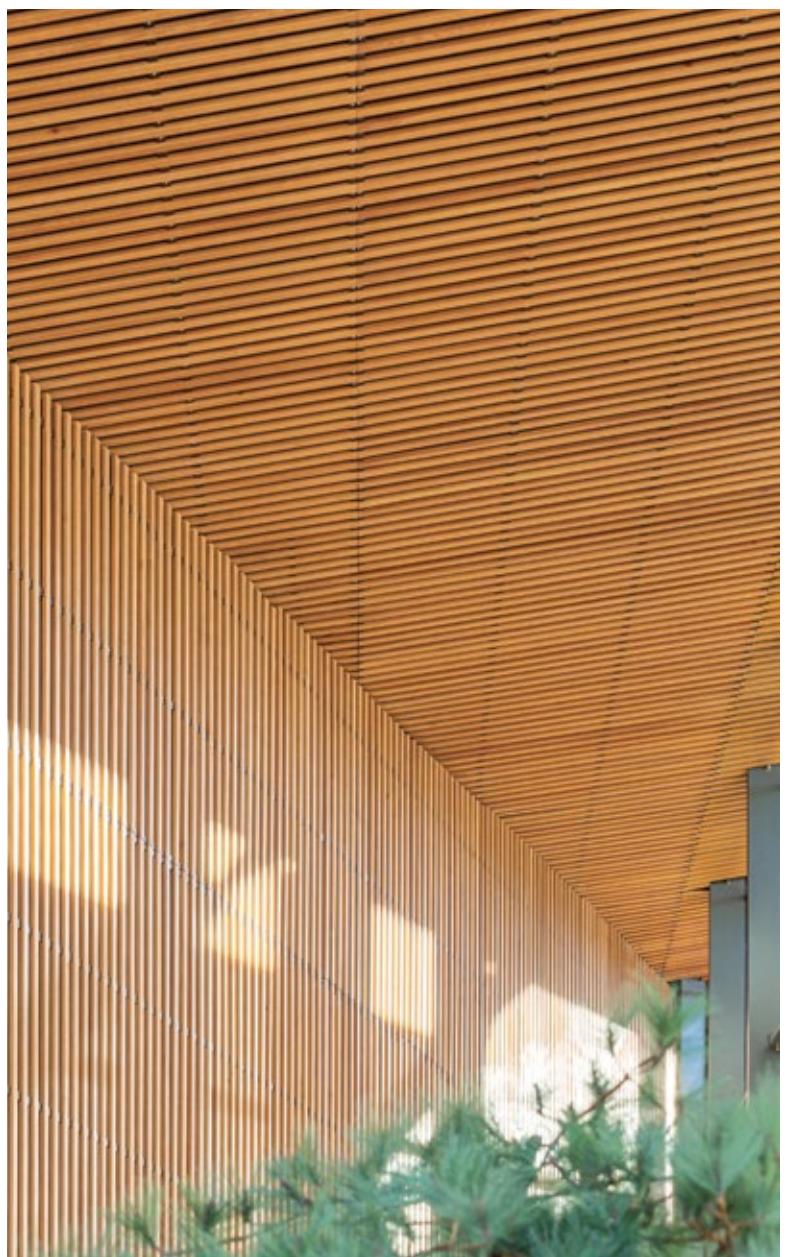
Climate

- Anticipate global warming (heat waves, increase in natural risks, etc.) by adapting spaces to preserve health and comfort: creation of cool areas, climatic shelters, study of the atmosphere of sites (aerology), natural regulation of rainwater, increase in the albedo of exposed surfaces, cooling of volumes, etc.

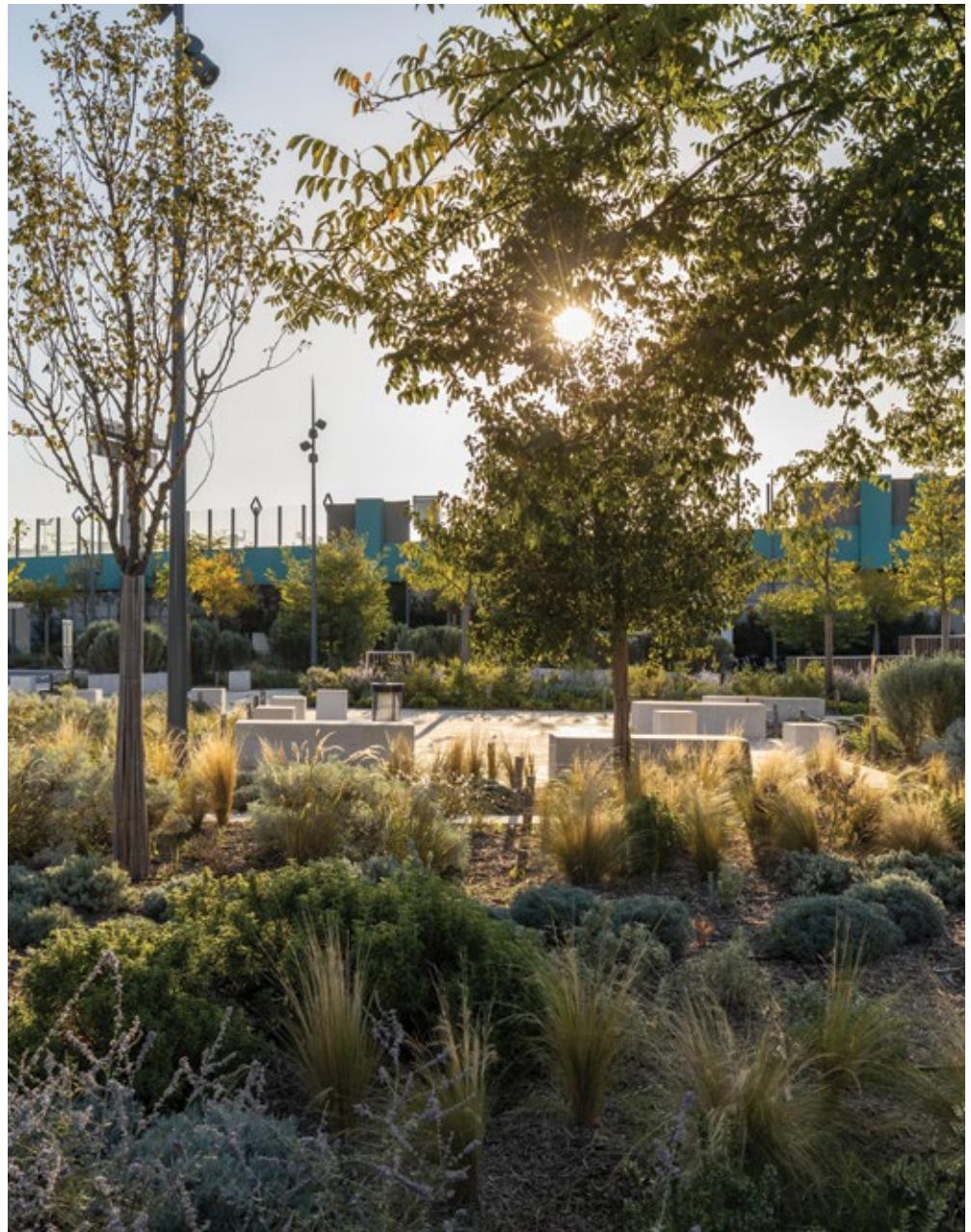
Biodiversity

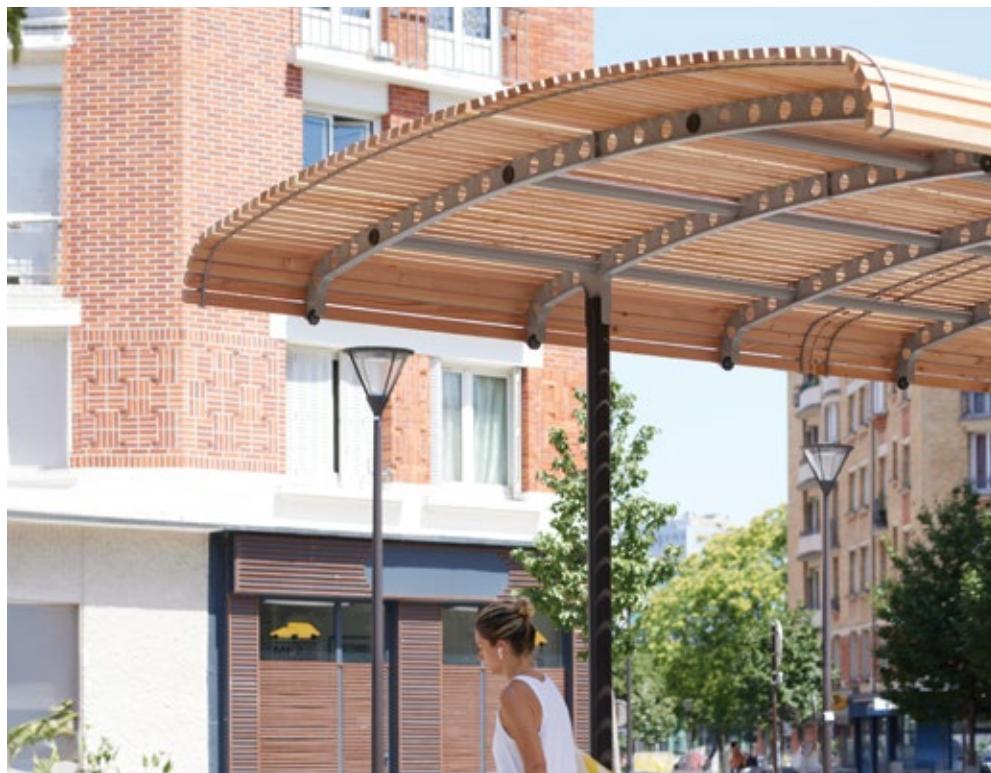
- Ensure that living things and human constructions can coexist by working on uses, biophilic design, and the ability of the envelope and the exterior fittings to integrate with an ecosystem.
- Preserve biodiversity, work with the existing topography, conceive a landscape where vegetation has several layers, merge the urban fringes with open green spaces.

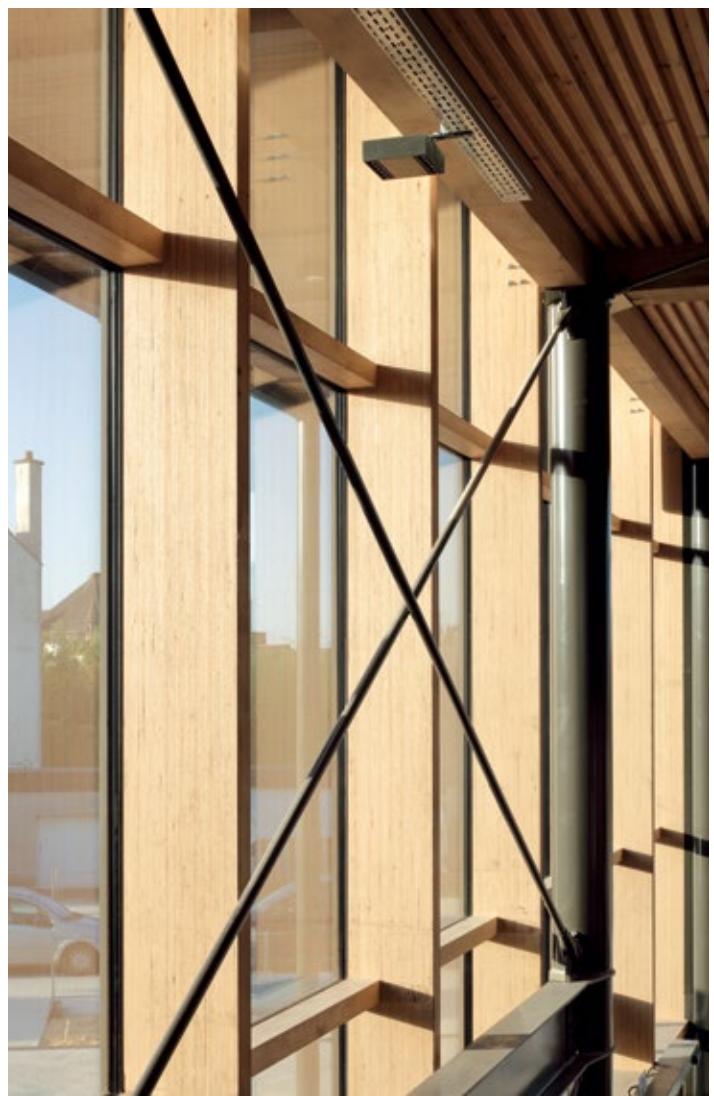












Overview

AREP Group is present in France, China, Vietnam, and Switzerland, and develops projects worldwide. Our team of over 1,000 experts brings creativity and technical excellence to projects of diverse typologies, scales, and contexts. We strive to deliver exemplary design solutions that are finely tuned, site-sensitive, and fully aligned with the needs of both clients and end users.

This portfolio offers an overview of our work through a curated selection of projects. Each one reflects AREP Group's commitment to creating designs guided by our core principles. By applying these principles, we aim to fully understand and respond to the unique challenges and opportunities of each context.

Jihlava train station Czech Republic

Client

Sprava železnic

Project management

AREP Architectes / AREP Group / Monom

AREP Group's mission

Station design, landscape design, bridge design

Delivery

2034 (planned)

Environmental metrics and solutions – EMC2B

Energy

- Local renewable energy production: 225 MWh

Materials

- Reused materials: 70 tonnes

Carbon

- Ic Global construction (all components and construction site): 64 500 tCO₂ eq

Climate

- Albedo: 0.37
- Discomfort degree hours: 24 °C.h/year

Biodiversity

- Green permeable surfaces: 17,900 sqm
- Mature trees: 5,000
Including reserved mature trees: 2,000





Budapest Nyugati station Hungary

Client

BFK Budapest fejlesztési központ nonprofit
(Budapest development agency)

Project management

AREP Architectes / AREP Group / Epitesz Studio / Artelia

AREP Group's mission

Station design, landscape design, engineering strategy

Delivery

2022 (competition proposal, ranked second)

Environmental metrics and solutions – EMC2B

Energy

First energy-positive train station in Europe

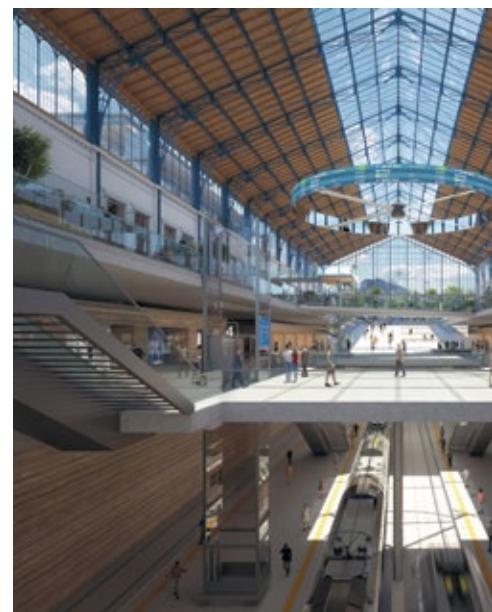
- 20,000 sqm of photovoltaic panels
- 1,440 kWh EP/sqm/year
- 3,494 KWp (peak-power)



Materials

Reuse, locally-sourced and low-carbon materials

- A sleek and efficient train platform roof
- Mixed timber and metal structure
- 340,000 m³ of soil reused on site



Carbon

A post-carbon station

- Use of low-carbon concrete
- The project favors the preservation of the existing built environment

Climate

An urban cool island at the heart of the city

- An urban albedo increased from 0.2 to 0.5
- Controlled and structured thermal comfort
- An XL fan to optimise thermal comfort and limit air conditioning

Biodiversity

An urban forest

- 16 ha of green spaces, 7 ha of woodlands
- 10,000 trees planted according to the Miyawaki method



Lausanne train station Suisse

Client

CFF-SBB-FFS

Project management

AREP Group / Merlini Rivier Architectes / Pragma (economics)

AREP Group's mission

Station design

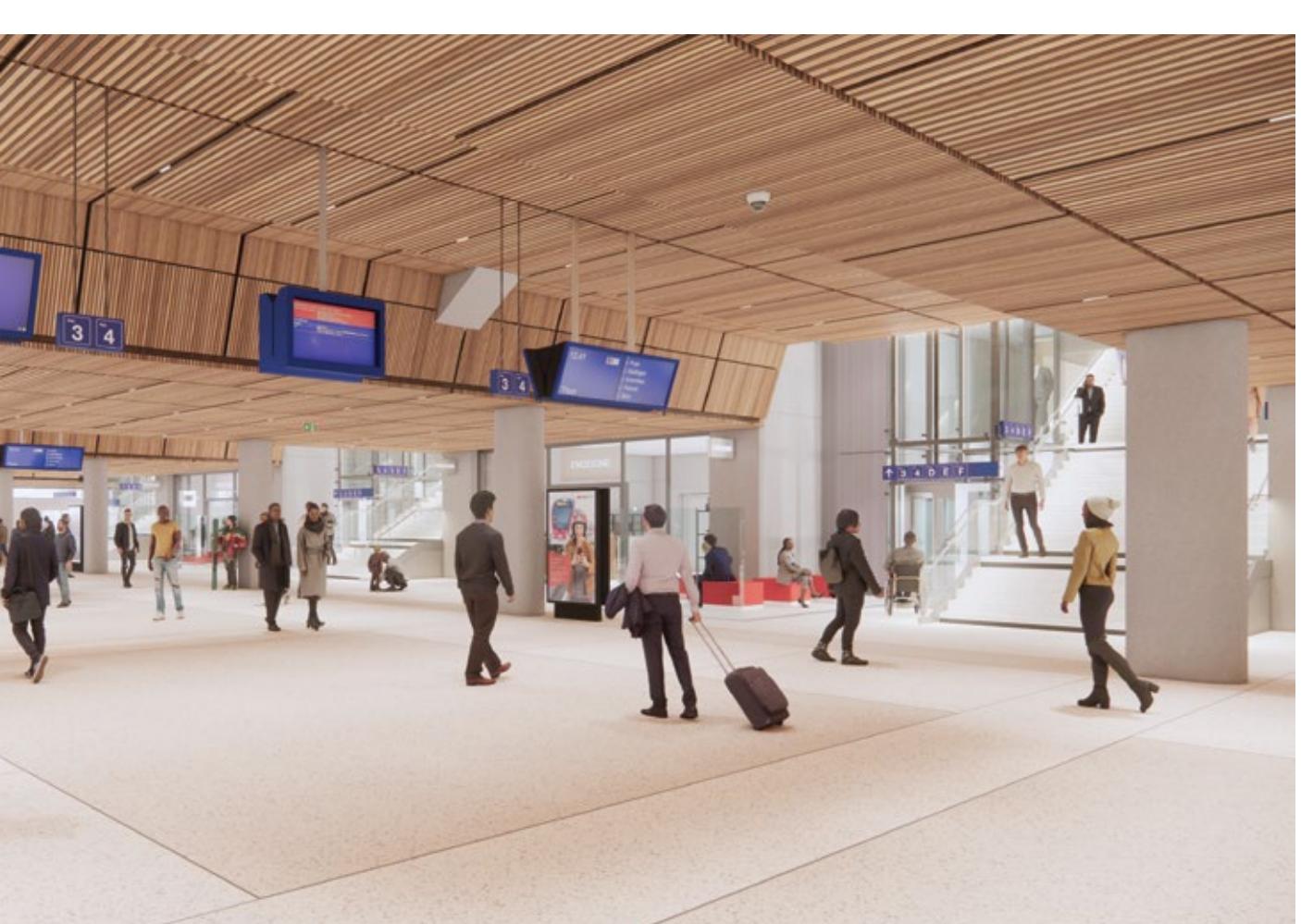
Construction cost

CHF 1,600 million

Delivery

2038 (planned)





Torino Porta-Susa train station

Italy

Distinctions

- European Award for steel structures – Prize awarded to Agostino Magnaghi jointly with AREP (2013)
- European Rail Station of the Year – Prize awarded to RFI jointly with AREP (2013)
- European Solar Prize – Prize awarded to AREP jointly with Silvio d'Ascia (2012)

Client

RFI (Rete Ferroviaria Italiana)

Project management

AREP Group (representative) / Silvio d'Ascia and Agostino Magnaghi, architects

AREP Group's mission

Complete service from project creation and concept design to practical completion

Cost

€65 million (excl. VAT)

Floor area

Station: 30,000 sqm / Photovoltaic glass roof

Delivery

2015

Environmental metrics and solutions – EMC2B

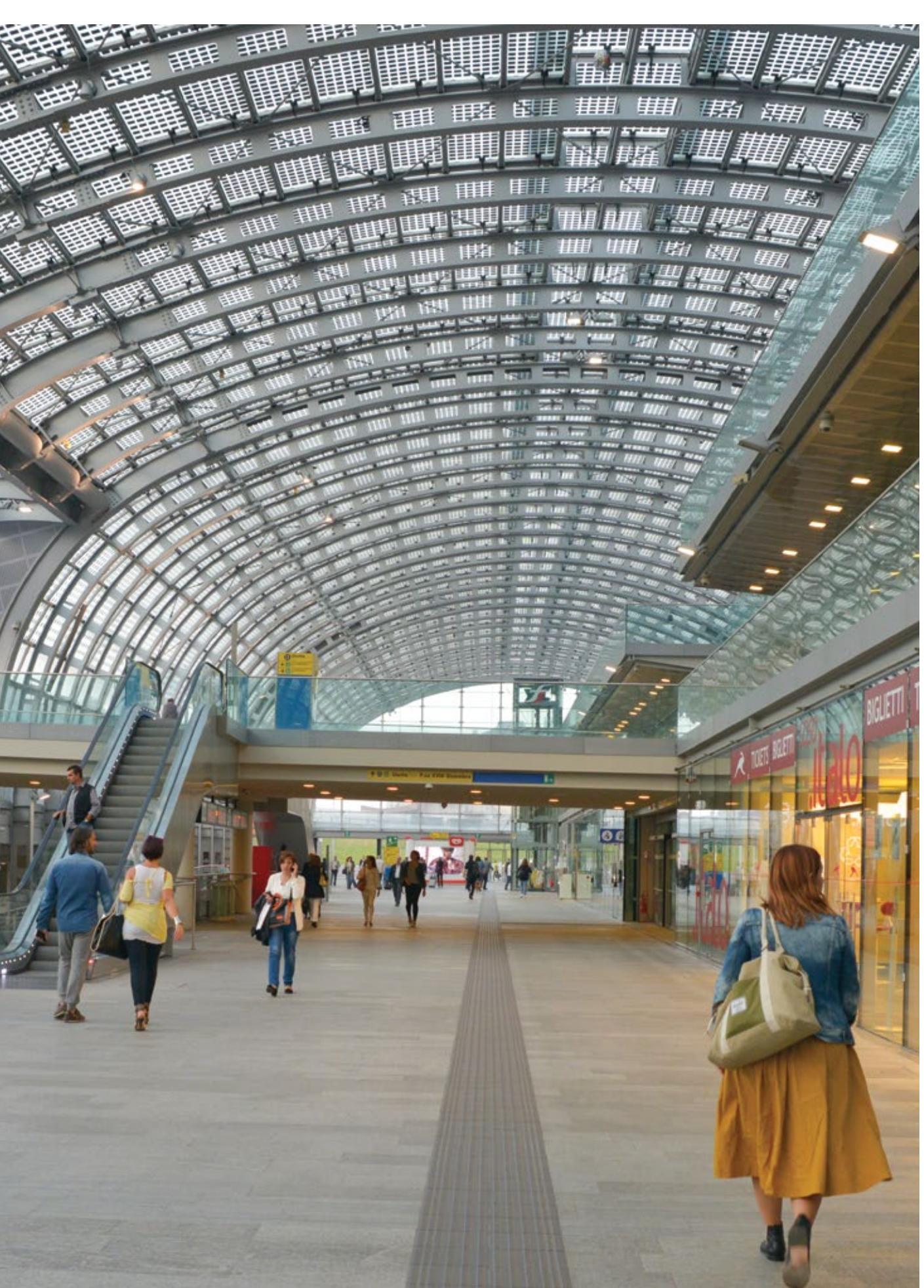
Energy

- Reduction of energy consumption by maximising natural daylight
- 15,000 sqm glass roof fitted with crystalline solar sensors
- Energy production: 680,000 kWh /year

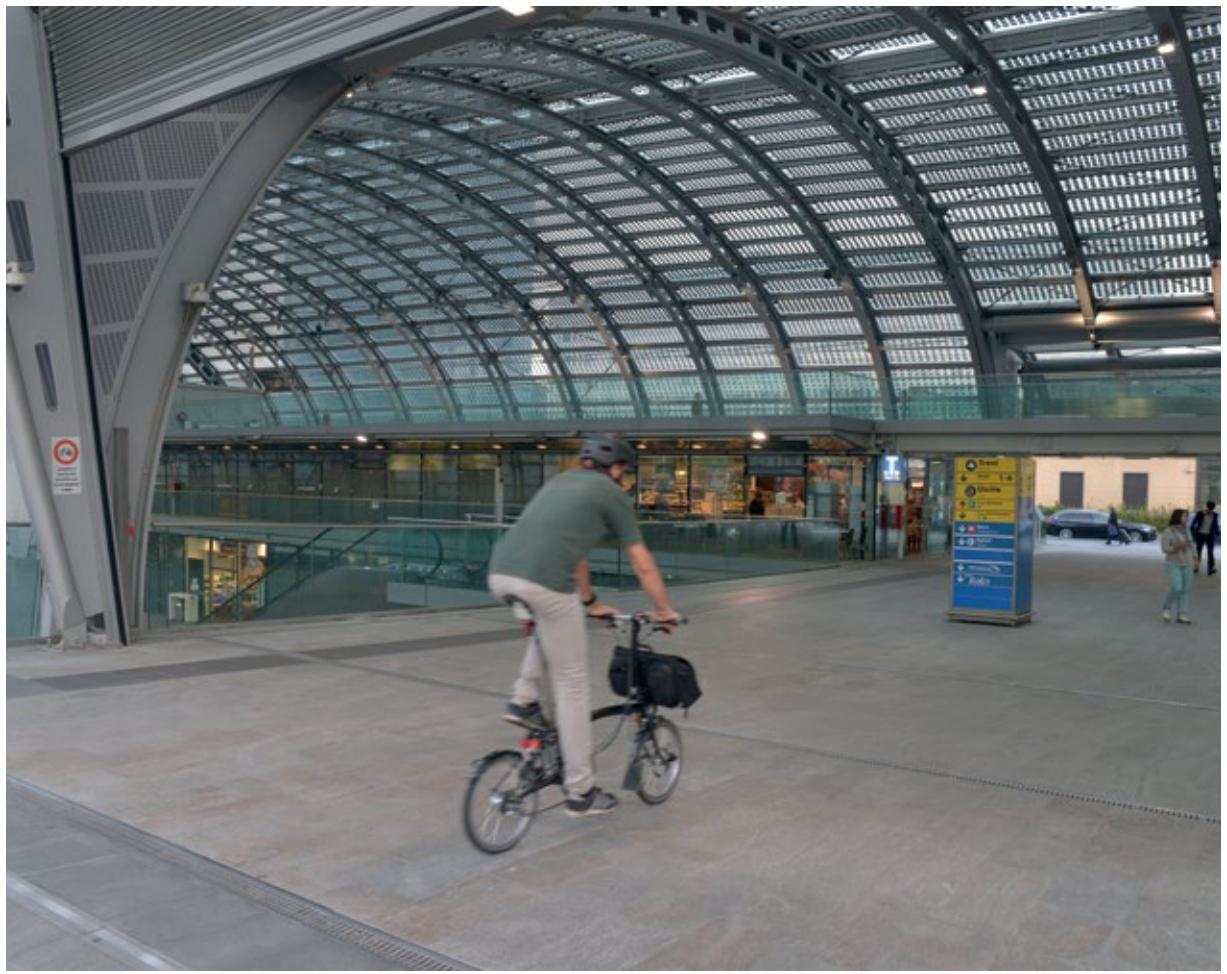
Climate

- Natural ventilation









Linz Tram-Train stations Austria

Client

Schiene OÖ GmbH & Co KG

Project management

DTFLR (Architect)/AREP Group

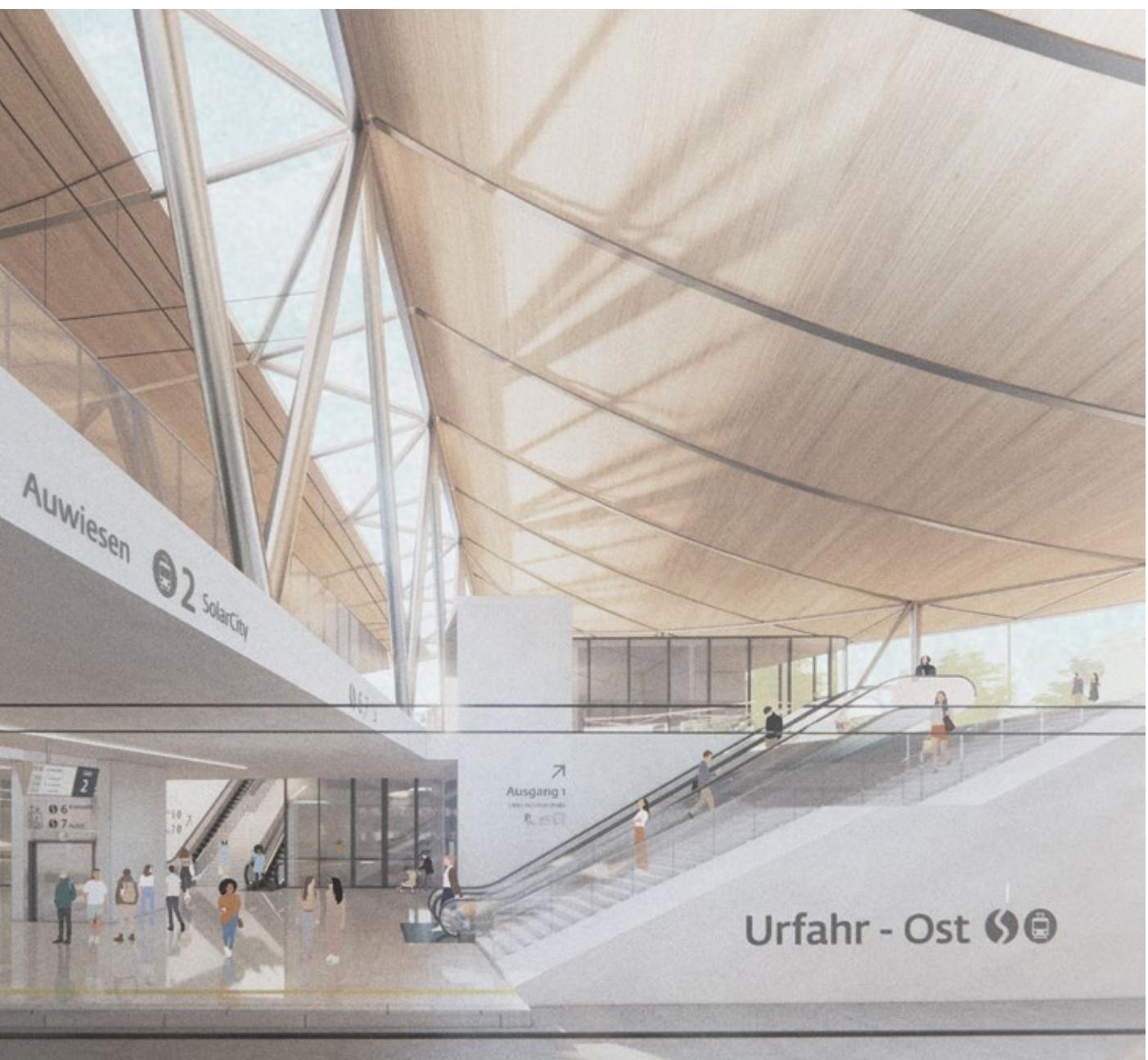
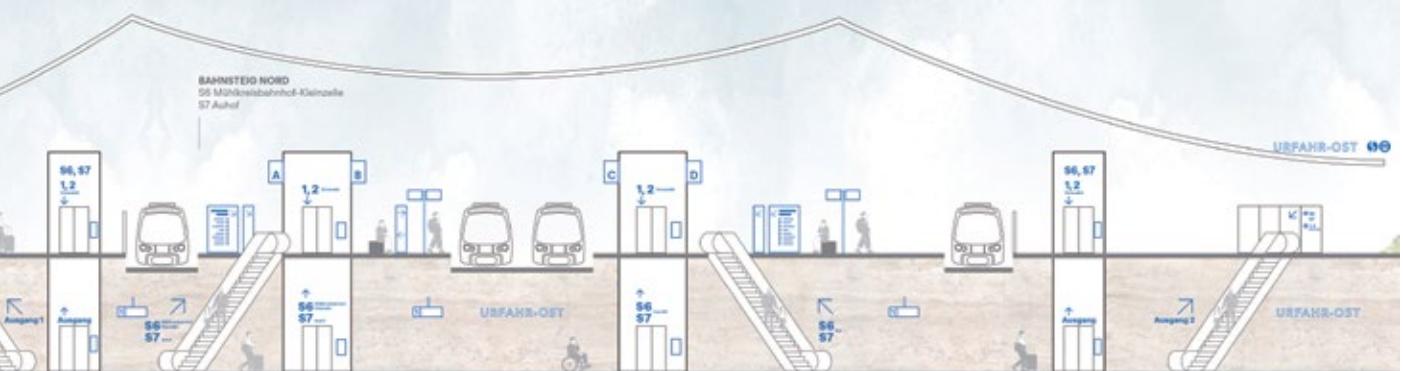
AREP Group's mission

User experience optimisation, service design,
product design, wayfinding

Delivery

2025 (competition proposal)





Brussels underground northern extension Belgium

Client

City of Brussels

Project management

Multidisciplinary group BMN (Bureau Métro Nord-Nord) jointly with AREP Group and Van Campenhout architecture practice

AREP Group's mission

Complete service from project creation and concept design to practical completion

Floor area

Verboeckhoven station: 7,000 sqm / Tilleul station: 4,000 sqm /
Bordet station: 7,281 sqm

Delivery

2032

Environmental metrics and solutions – EMC2B

Energy

- Implementation of daylight solutions to bring light down to the rail track level
- Photovoltaic roof panels

Materials

- Reuse of rainwater
- Recycling of the tunnel spoils from the tunnel boring machine

Carbon

- Optimisation of intermodality: up to 500 secure bike parking spaces in several stations
- A minimum of 3 bus / tram / train lines

Climate

- Unheated station areas
- Optimisation of natural ventilation

Biodiversity

- Green spaces at every station, open around the clock
- Most exterior surfaces are pervious





Nîmes Pont-du-Gard train station

France

Distinctions

- Brunel Award (2025)
- "Sustainable building Occitanie" certification (2022)

Client

SNCF Réseau

Architect

SNCF Gares & Connexions / AREP Group

AREP Group's mission

Design of the new passenger building and exterior spaces.
Complete service from project creation and concept design
to practical completion

Cost

€22 million (excl. VAT)

Floor area

3,000 sqm / Outdoor area: 20.6 ha

Delivery

2019

Environmental metrics and solutions – EMC2B

Energy

- 7,700 sqm of solar car ports

Materials

- Solid wood posts
- Solar shading made of bamboo canes
- On-site reuse of all excavated material
- Use of harvested rainwater for flushing toilets and cleaning purposes

Carbon

- Total life cycle emissions: 2,400 kg CO₂ eq / sqm

Climate

- Site-wide rainwater infiltration scheme
- Exterior solar shading to minimise heat gain in the concourse
- Natural ventilation and mist cooling for thermal comfort in the concourse during summer

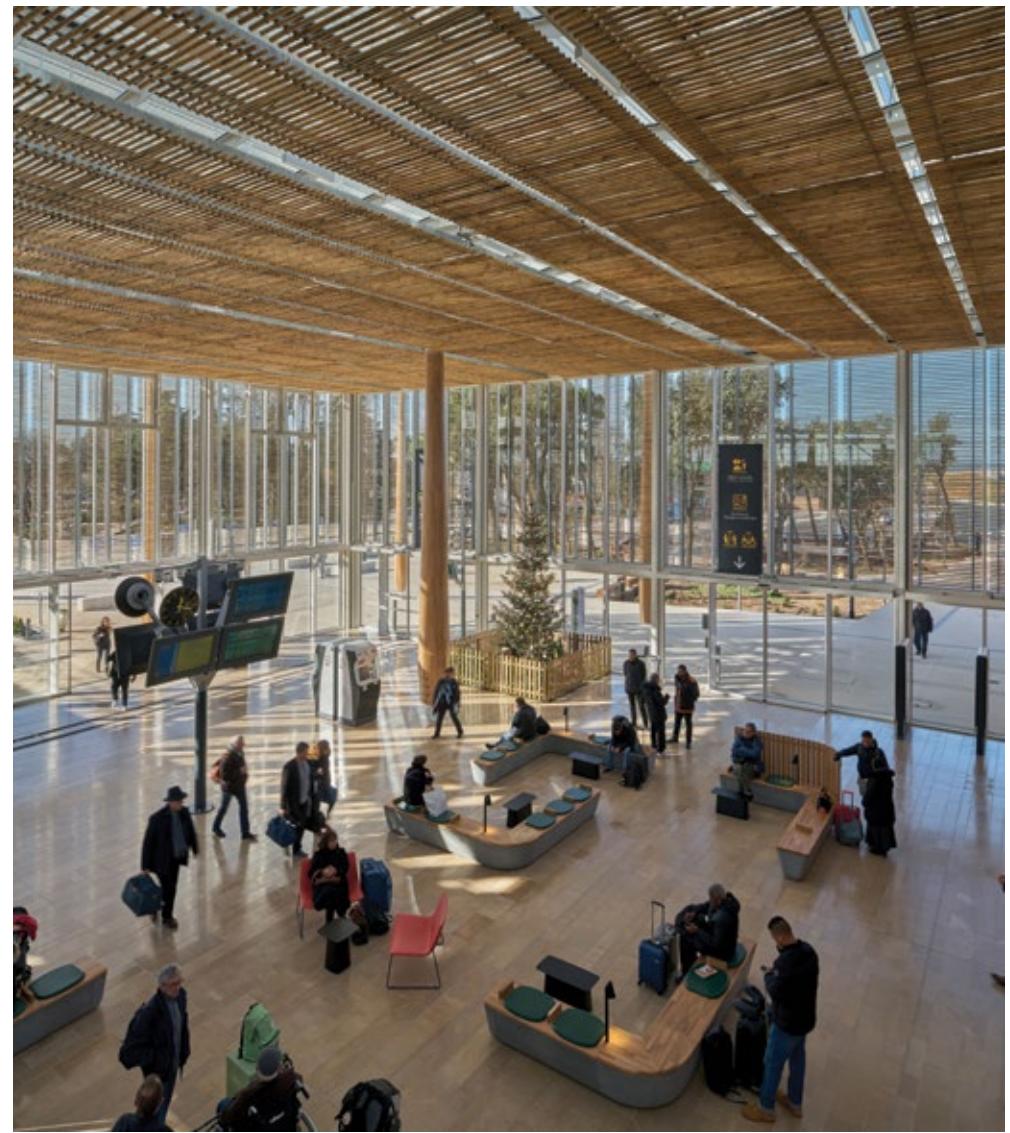
Biodiversity

- 223 trees out of 435 have been preserved
- 390 new trees have been planted as part of the project
- Installation of insect hotels
- Installation of hibernacula for the ocellated lizard









08

Saint-Jean-de-Maurienne train station

France

Client

SNCF Réseau on behalf of TELT (Lyon-Turin cross-border rail line)

Project management

SNCF Réseau

Architectural concept and design studies

SNCF Gares & Connexions / AREP Group

AREP Group's mission

Concept design of the passenger building and exterior spaces
Complete service from project creation and concept design
to practical completion

Cost

€4.2 million (excl. VAT)

Cross-border section: 8.6 bn (excl. VAT)

Floor area

8,000 sqm

Delivery

2022

Environmental metrics and solutions – EMC2B

Energy

- Optimisation of energy consumption through natural ventilation
- Management of modular spaces designed to help handle the snow sports peak season

Materials

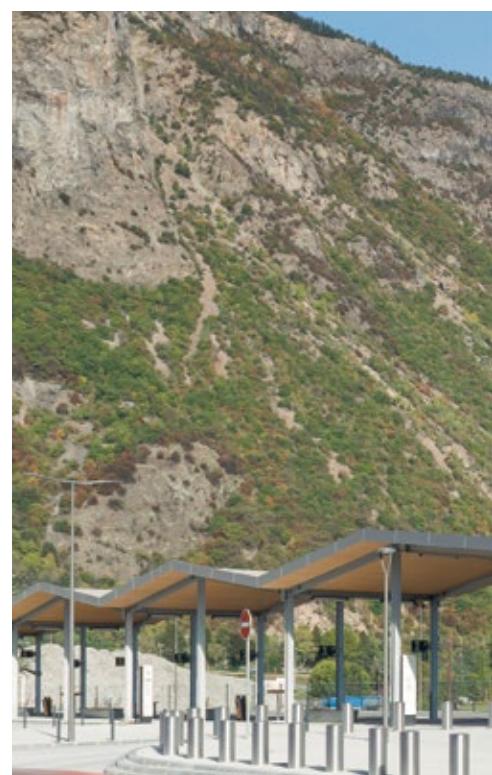
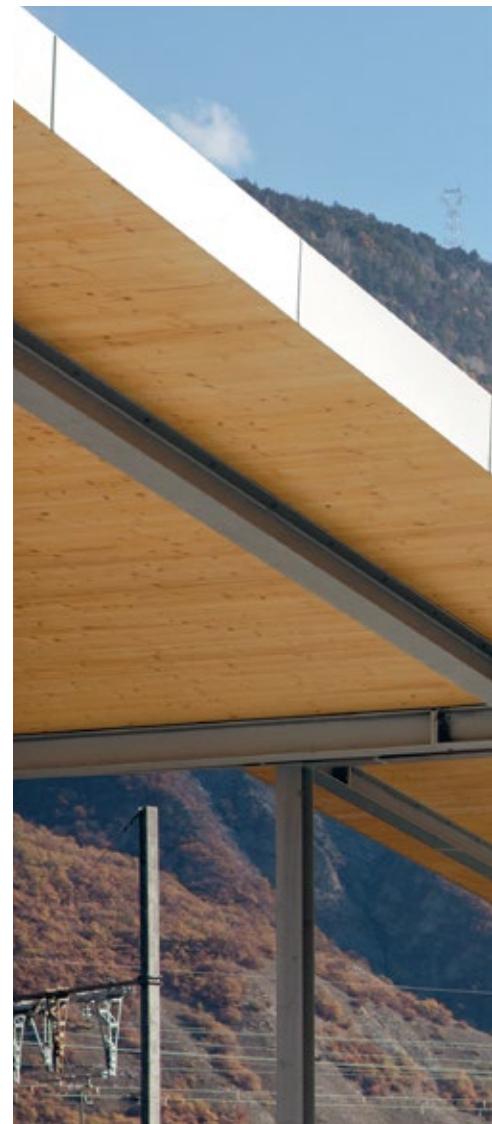
- CLT structure and timber cladding sourced from French forests located around the production site

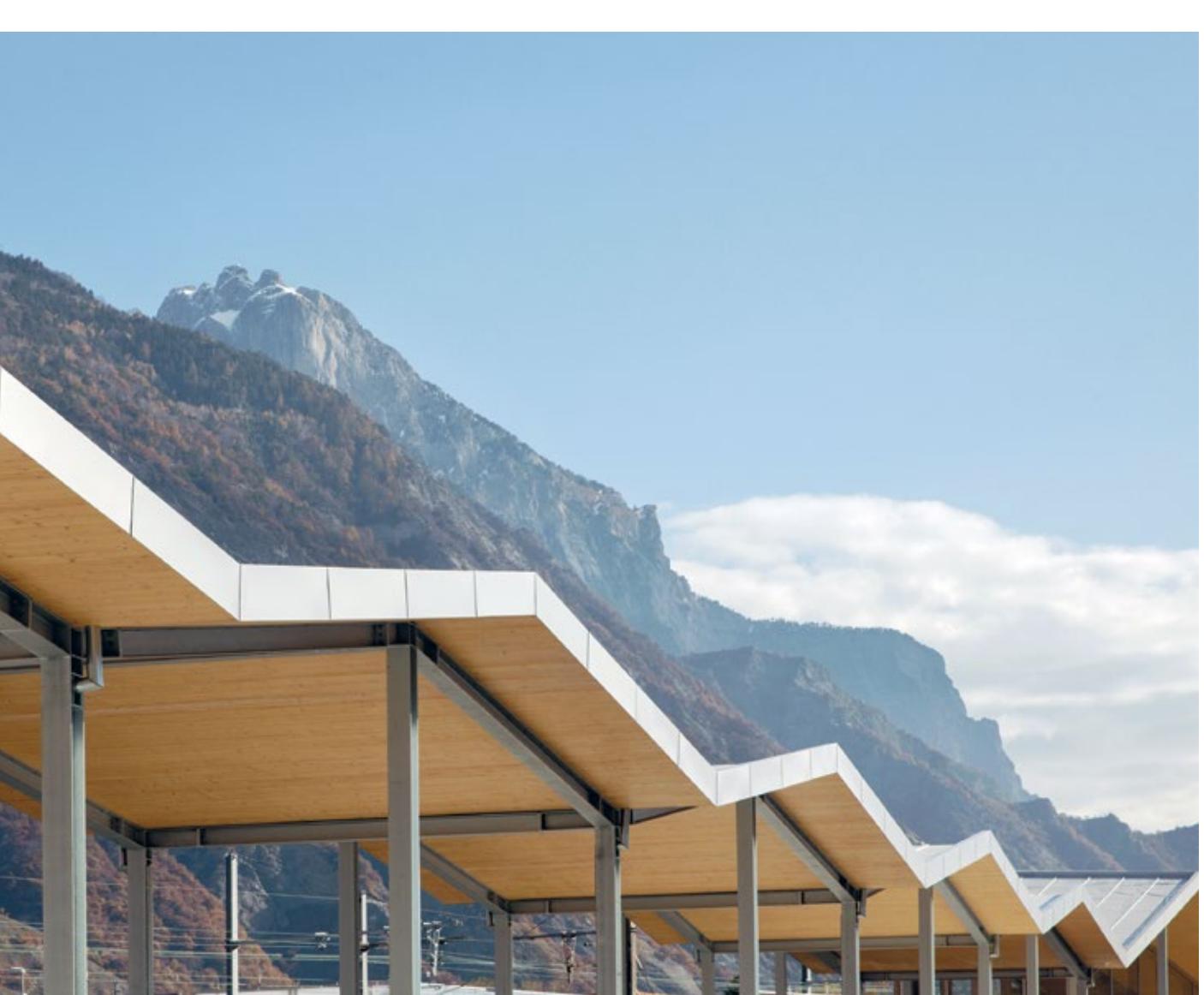
Carbon

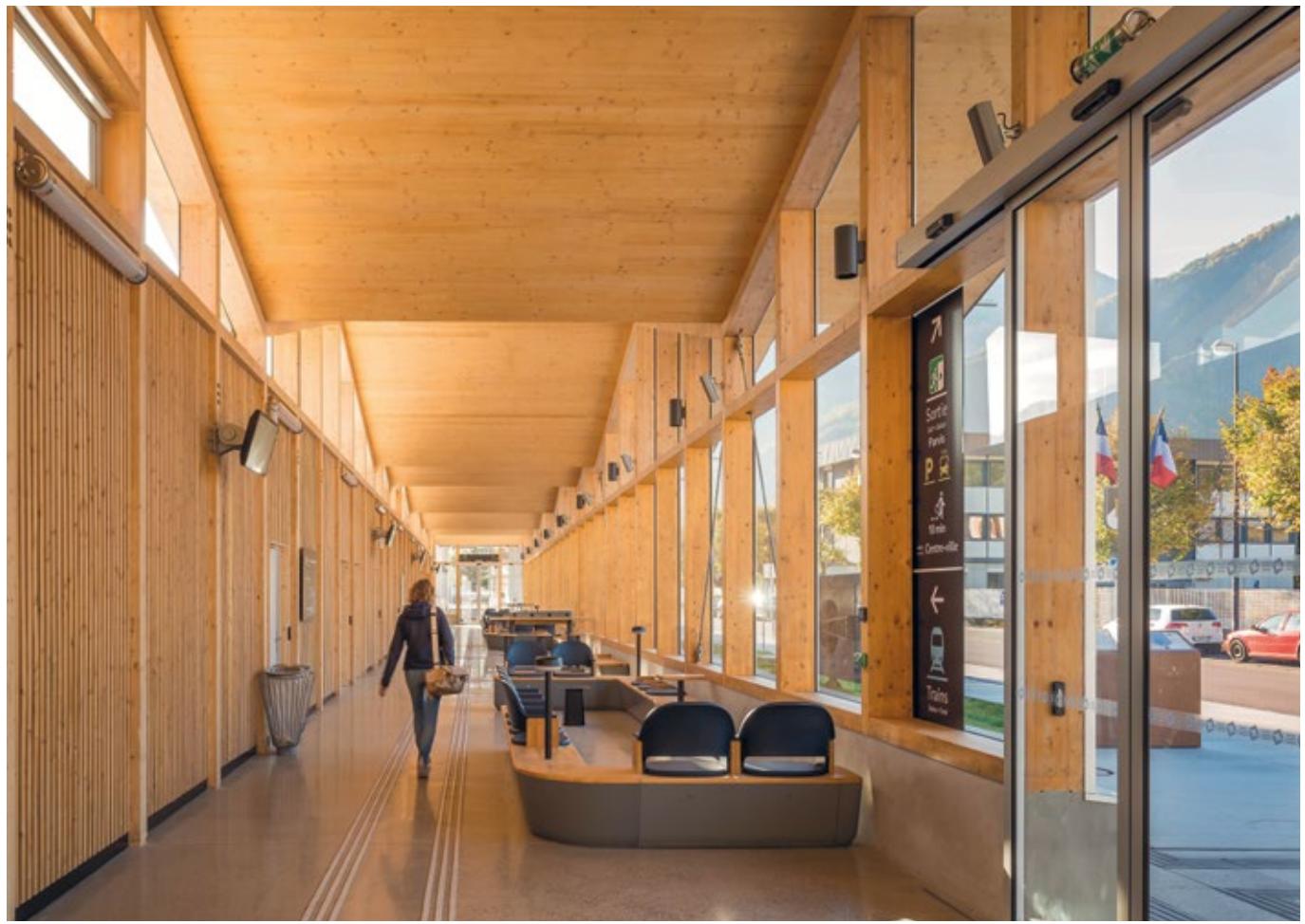
- Prefabricated construction system adapted to the lifespan of the building
- Broader reflection on the possibility of dismantling the building and using its materials for other purposes and on other construction sites at the end of its intended lifecycle

Climate

- Thermal comfort during winter and summer
- Largely glazed south-facing façade allowing for natural light to flood into the unheated passenger areas
- Cantilevered canopy on the south-facing façade which helps control sunlight during summer









Saint-Michel Notre-Dame train station Paris

Distinction

National Engineering Grand Prize Award (2021)

Client

SNCF Gares & Connexions - Paris Region stations department
/ SNCF Réseau

Project management

SNCF Gares & Connexions / AREP Group

AREP Group's mission

Architecture, design, heritage architecture, engineering, HVAC,
acoustics, environment, pedestrian flows
Complete service from project creation and concept design
to practical completion

Cost

€25.9 million (excl. VAT)

Floor area

3,072 sqm

Delivery

2023

Environmental metrics and solutions – EMC2B

Energy

- Reduction of energy consumption

Materials

- Waterborne transport of materials

Carbon

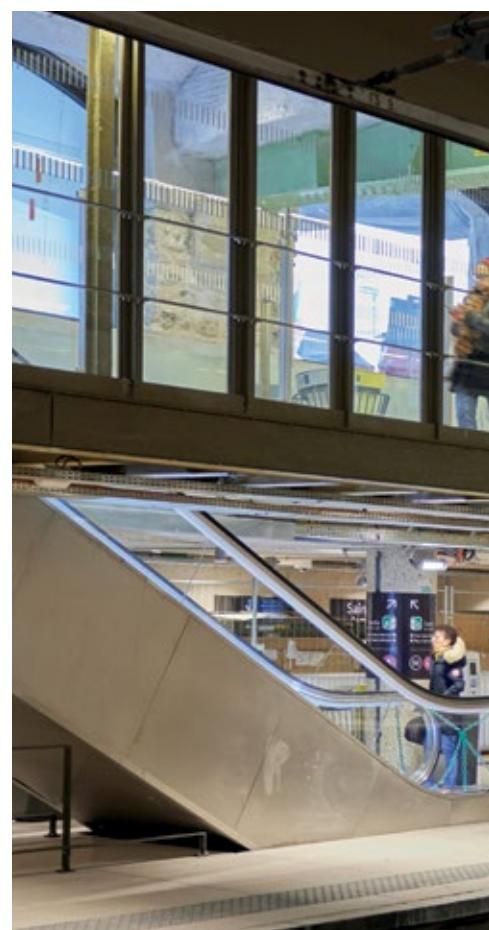
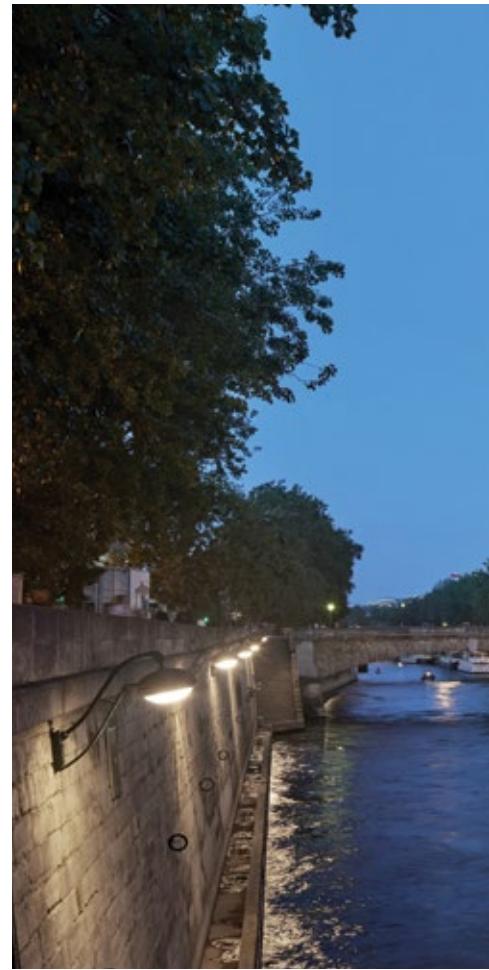
- Reduced use of concrete

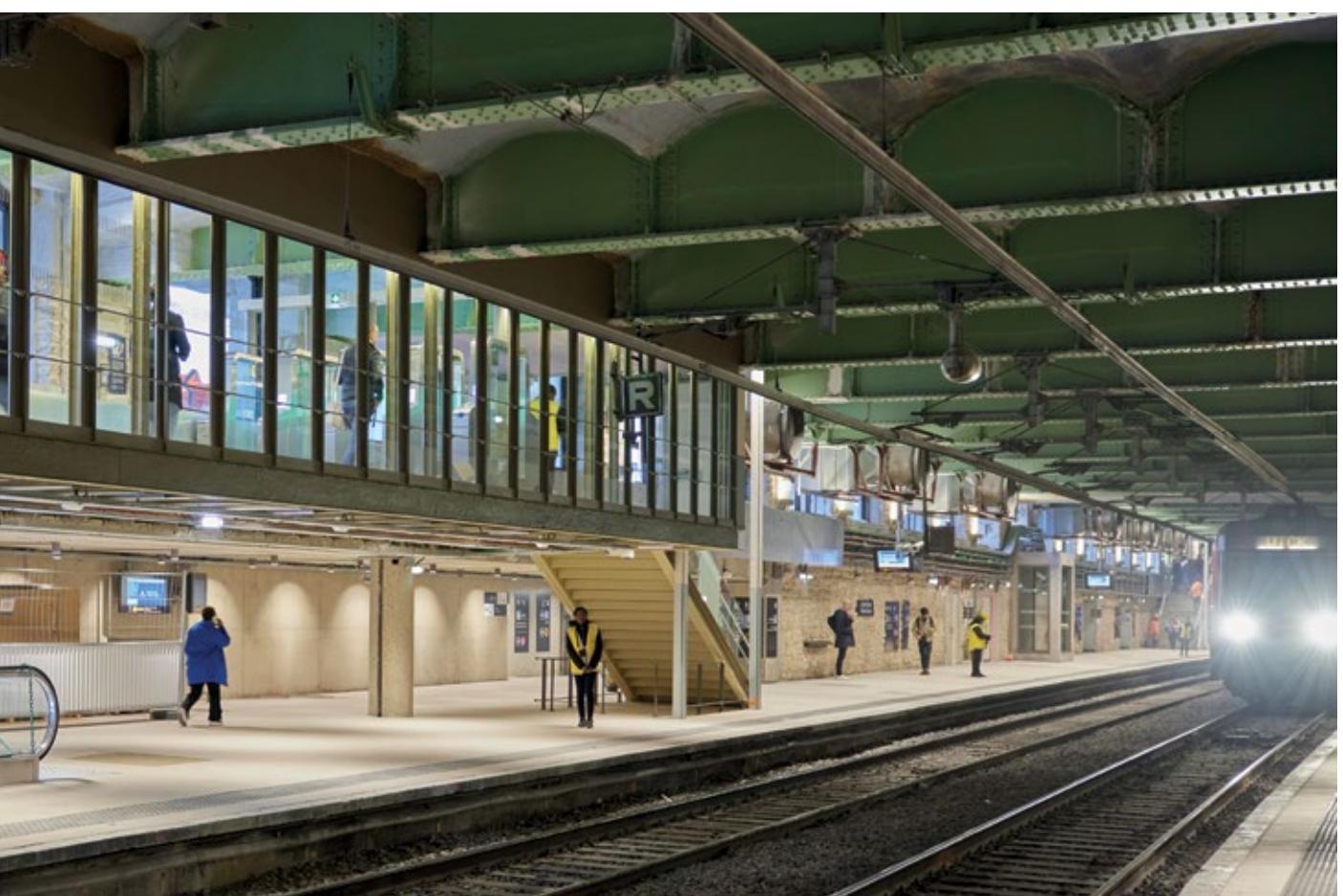
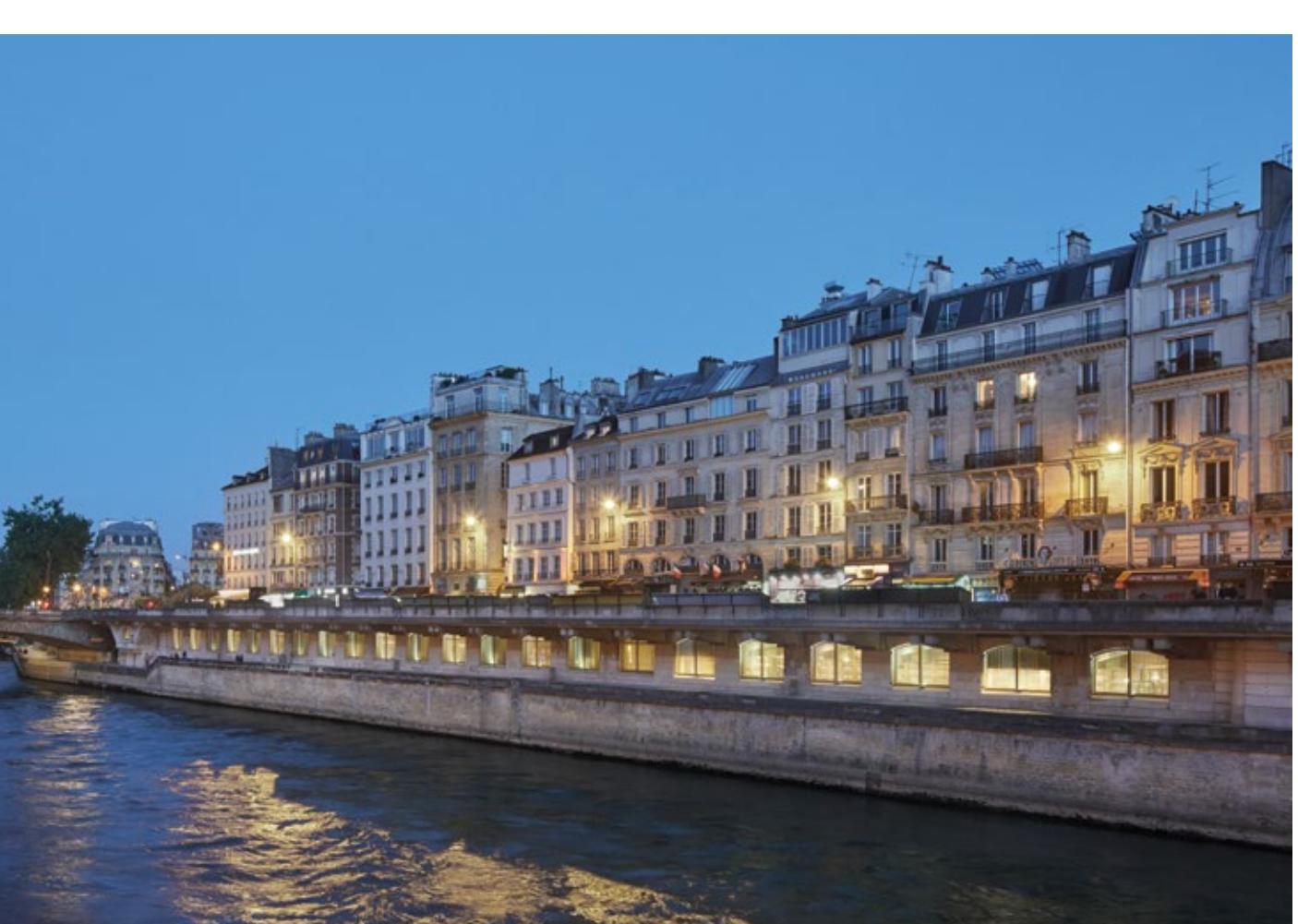
Climate

- Improvement of indoor air quality

Biodiversity

- Minimal impact on the station's exterior





Saint-Lazare train station Paris

Client

SNCF Gares & Connexions / Ségécé Klépierre / Spie Batignolles
Immobilier

Project management

SNCF Gares & Connexions / AREP Group / DGLa

Partners

SCGPM / Barbanel

Project construction management

AREP Group / DGLa / SNCF Batimotique for the SNCF lots

AREP Group's mission

Remodelling and modernisation of the passenger areas, redevelopment of the station forecourt
Complete service from project creation and concept design to practical completion

Cost

€250 million (excl. VAT)

Floor area

10,000 sqm

Commercial spaces: 8,200 sqm

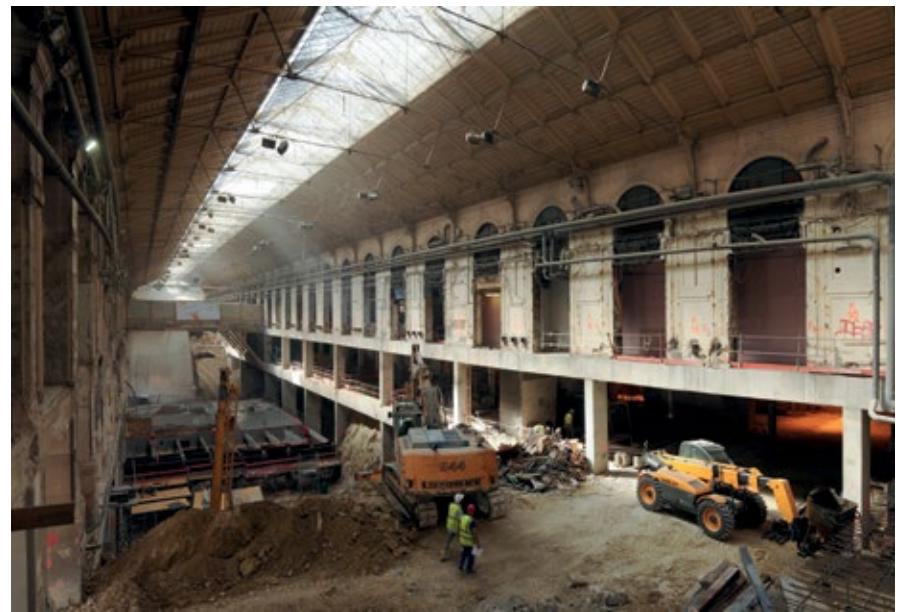
Delivery

2012: core of the station
2014: forecourt









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Rennes train station France

Distinction

"Station of the Year" at the Regional Award (2020)

Client

SNCF Gares & Connexions

Project management

SNCF Réseau / SNCF Gares & Connexions / AREP Group

Partners

MaP3 / Patrick Rimoux

AREP Group's mission

Transformation of the station, extension and creation of new intermodal connections. Complete service from project creation and concept design to practical completion

Cost

€60 million for the station transformation (excl. VAT)

Floor area

Building: 7,450 sqm / ETFE roof: 3,500 sqm / Planted areas: 3,100 sqm

Delivery

2019

Environmental metrics and solutions – EMC2B

Energy

- Station spaces flooded with natural light
- Centralised control of the station's technical systems

Materials

- Preservation of the platform façade and the station bridge roof dating back to 1980. The floor of the station bridge is made of bamboo to ensure passenger comfort

Carbon

- Carbon footprint of the station: 1,500 kg eqCO₂ / sqm
- 50% of the CO₂ emissions result from the construction materials

Climate

- 3,100 sqm of green spaces
- Screen-printed ETFE cushions

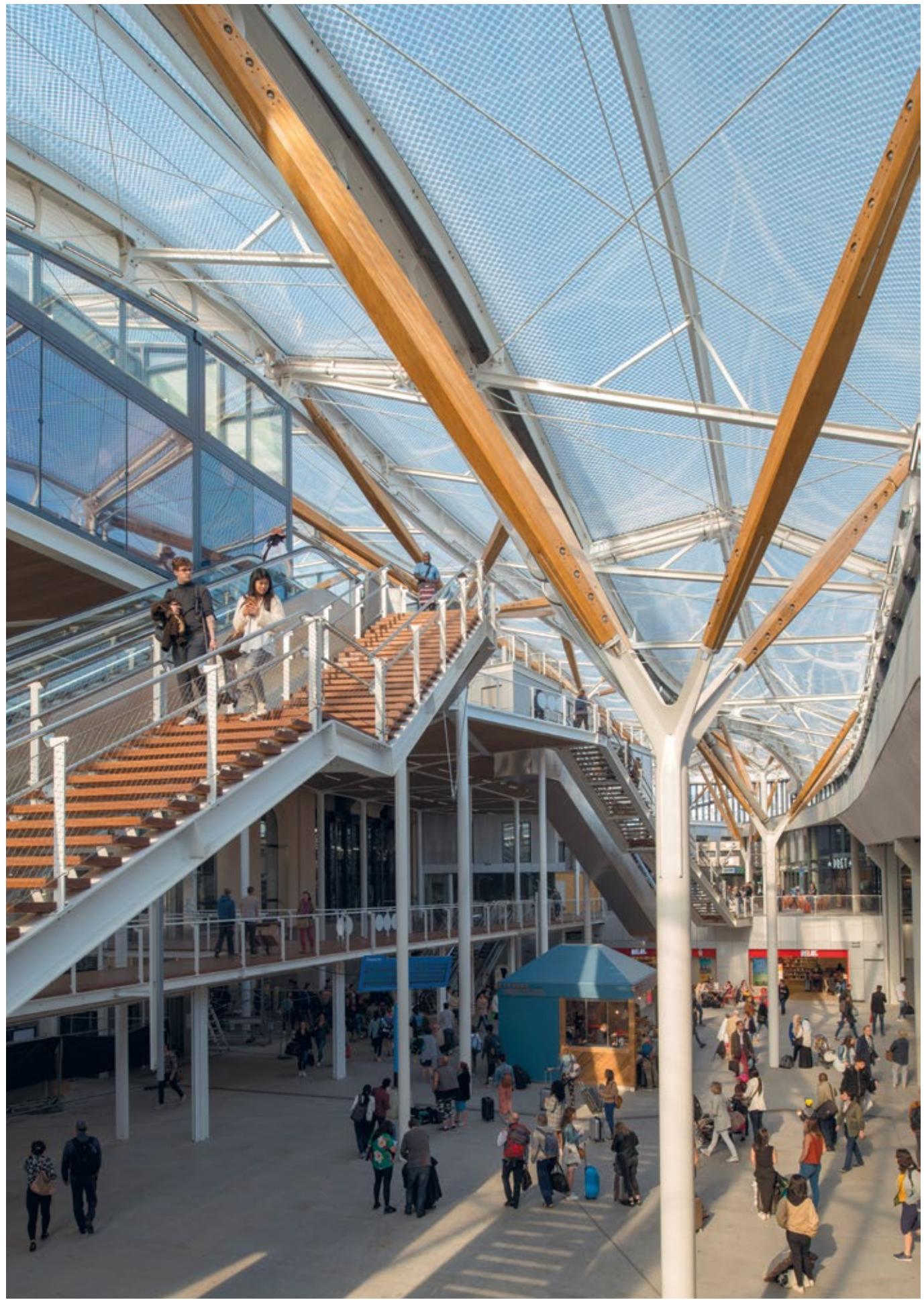
Biodiversity

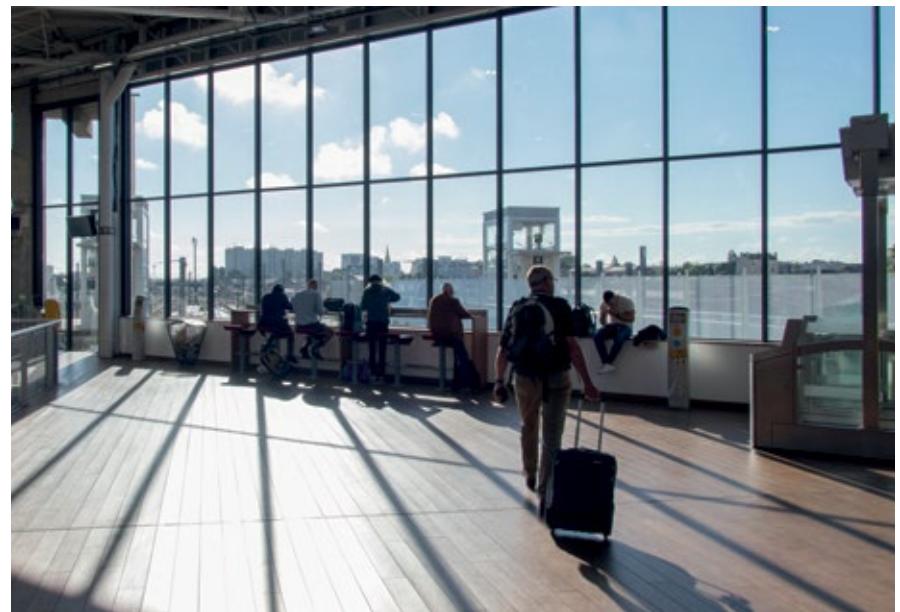
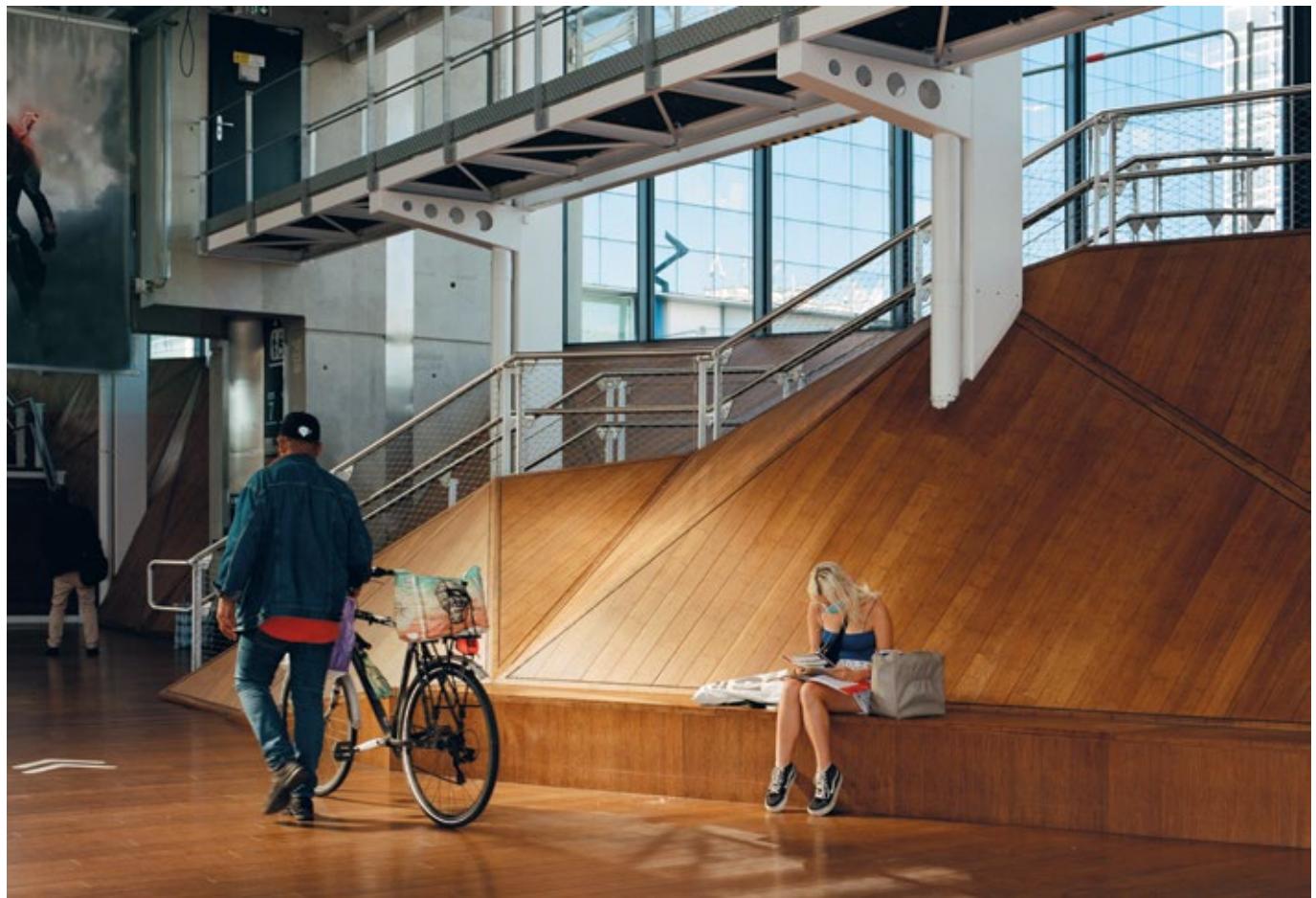
The built landscape helps:

- improve the microclimate and air quality for the entire city block
- develop the natural functions of the soil
- rainwater infiltration and evaporation through plants
- create and upgrade a vital space for the fauna and flora









Paris-Nord train station "Horizon 2024"

Paris

Distinctions

- Brunel Award commendation (2025)
- International Architecture Award (2025)
- The Plan Award mention (2025)

Client

SNCF Gares & Connexions

Project management

SNCF Gares & Connexions / AREP Group

AREP Group's mission

Design of a solar bicycle hall and upgrade of the bus eco-station, improvement of pedestrian routes and intermodal connections

Construction cost

€45 million including €3.7 million for the solar bicycle hall

Floor area

80,000 sqm

Delivery

2024

Environmental metrics and solutions – EMC2B

Energy

- 25% reduction in energy consumption for lighting
- 8% reduction in energy consumption of escalators
- 5% reduction in energy consumption of lifts
- Photovoltaic panels: 150 MWh / year (bicycle hall)

Materials

- Reuse: Beaubourg escalator glass, SNCF desk, parquet, etc.
- Circular material management (resource ID via reuse platform)
- Guidelines for a sustainable construction site

Carbon

- More than 1,200 bicycle parking spaces (bicycle hall)
- Pedestrian-dedicated areas increased by 17% (ecostation)
- Urban logistics hub dedicated to last-kilometre deliveries

Climate

- Rainwater harvesting (bicycle hall)
- Improvement of the average albedo: 0.35 (+120%)
- Surface of roof dedicated to water harvesting: 300 sqm
- Increase in pervious surfaces by 11%

Biodiversity

- New green spaces and roofs on 70% of new structures (excluding PV panels)









Paris-Lyon train station Paris

Client

SNCF Gares & Connexions

Project management

SNCF Gares & Connexions / AREP Group

AREP Group's mission

Restoration and enhancement of the heritage building and its integration into the urban environment, along with the upgrading of the retail area

Cost

Total amount: €20 million (excl. VAT)

Restoration of the frescoes: €6.9 million (excl. VAT)

Restoration of Small passenger hall: €20 million (excl. VAT)

Floor area

4,500 sqm

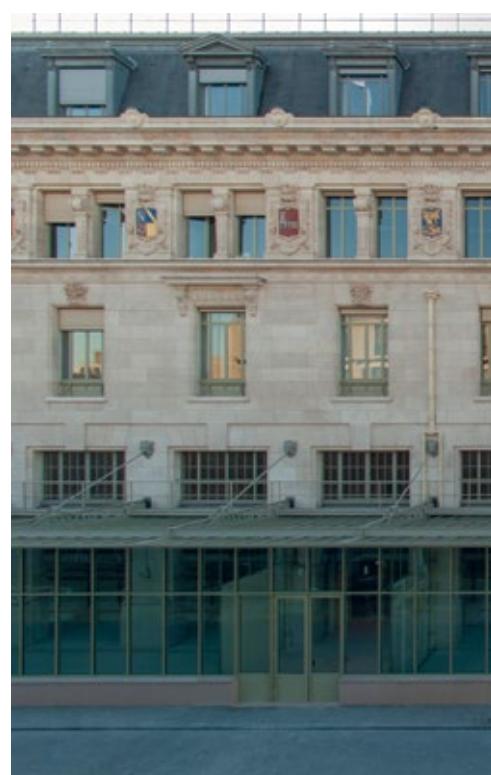
Frescoes Gallery: 110 metres long x 12 metres wide

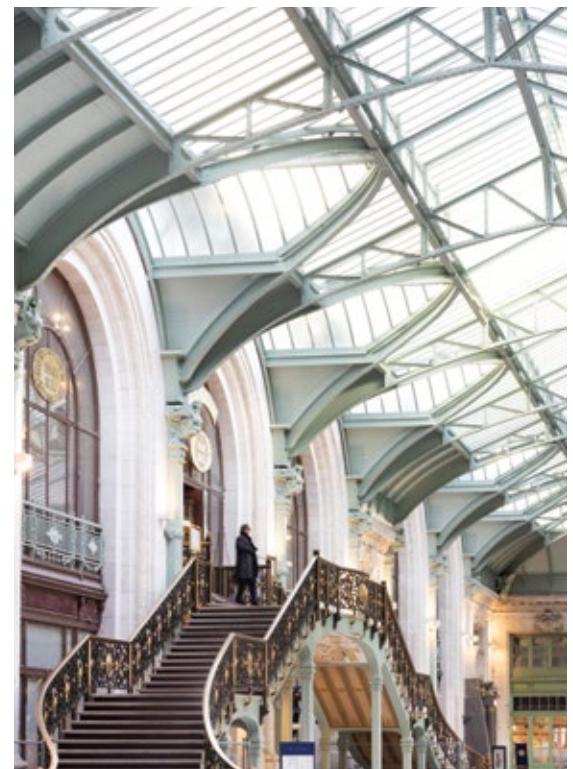
Small passenger hall: 2,300 sqm

Delivery

2021 for Frescoes Gallery

2024 for Small Passenger Hall





La Défense Grande Arche station

France

Client

SNCF Réseau

Project management

Setec TPI / Egis Rail / AREP Group

Architect

Agence Duthilleul

AREP Group's mission

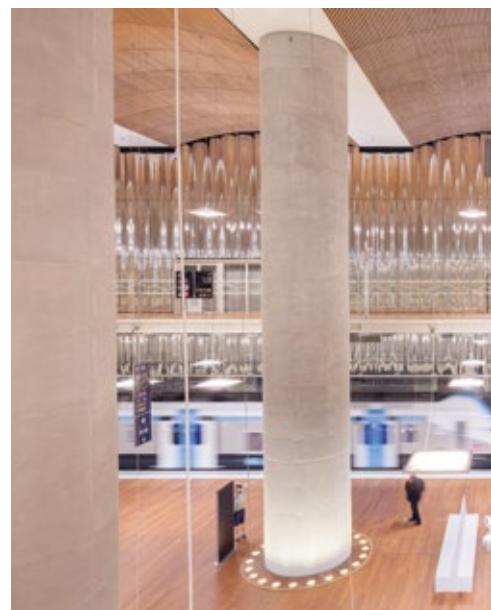
Station design (subcontract)

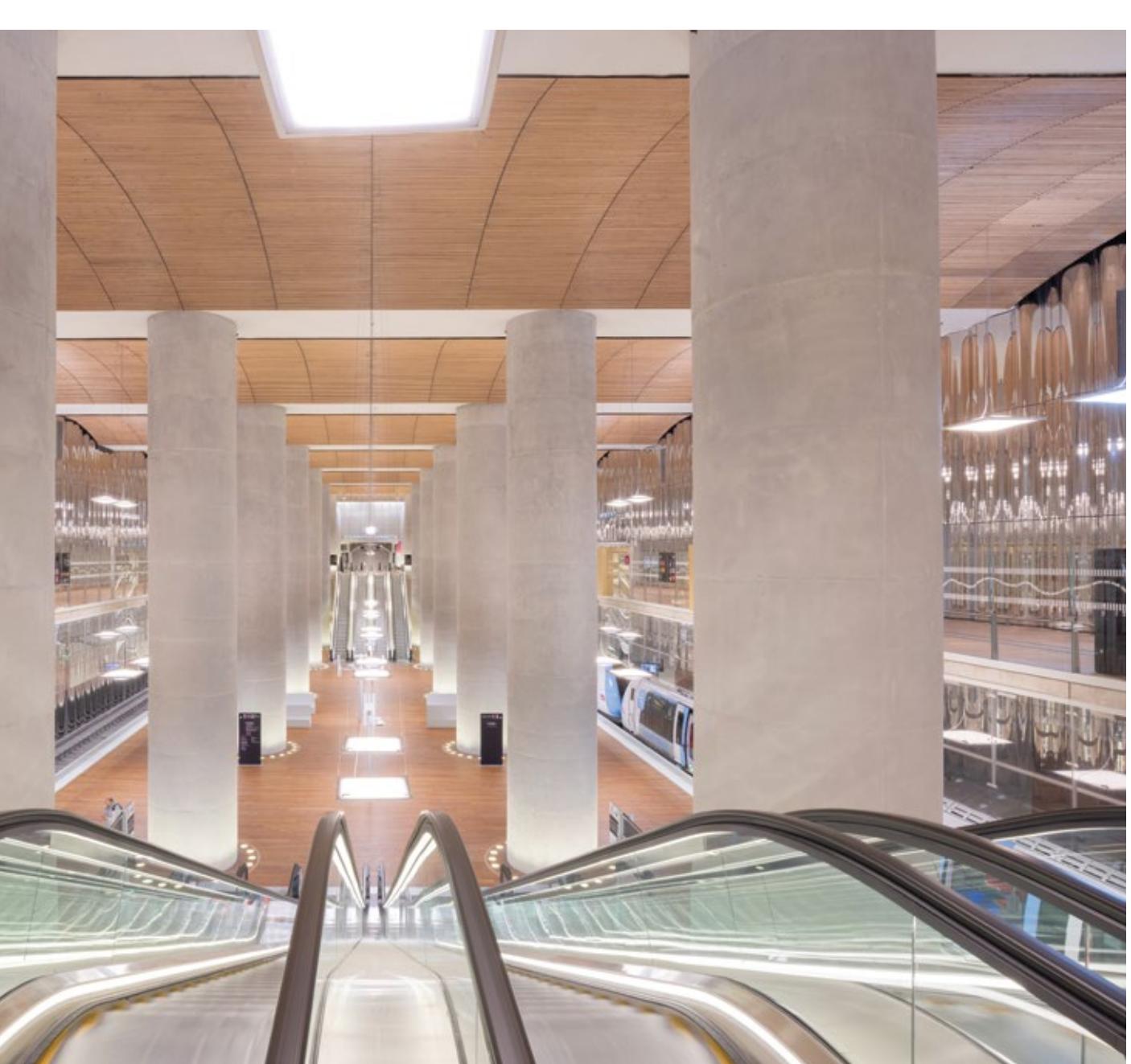
Construction cost

€550 million

Delivery

2024





Paris Porte Maillot- Palais des Congrès station

France

Client

SNCF Réseau

Project management

Setec TPI / Egis Rail / AREP Group

Architect

Agence Duthilleul

AREP Group's mission

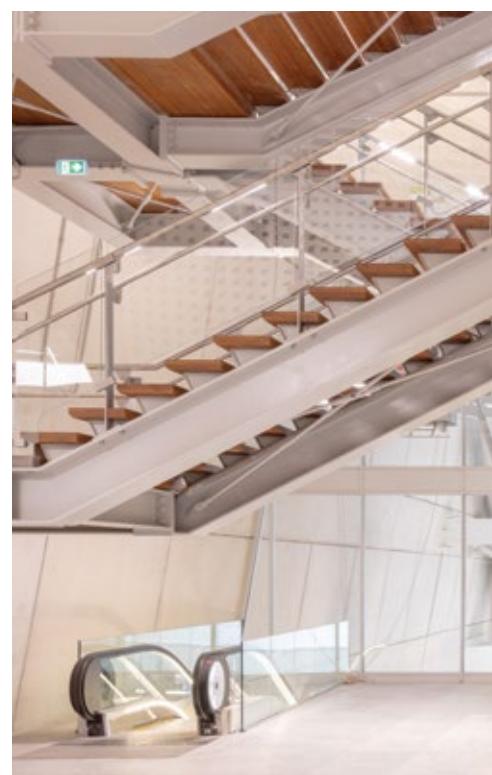
Station design (subcontract)

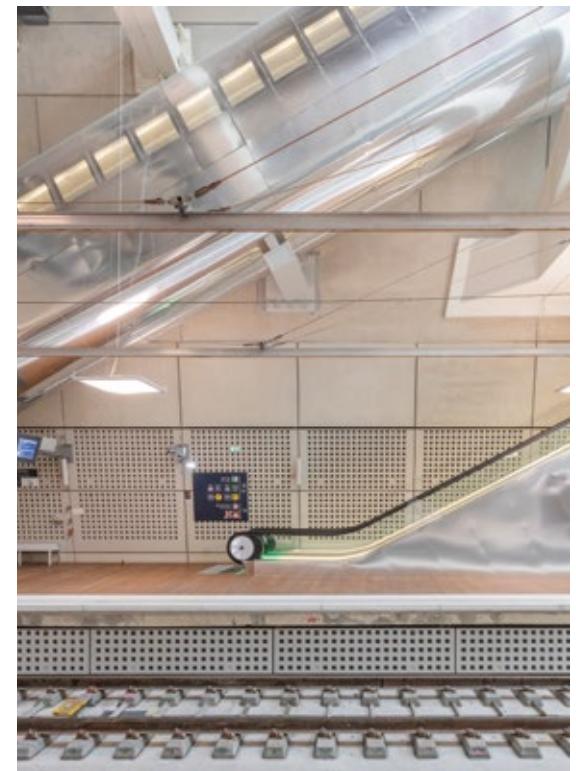
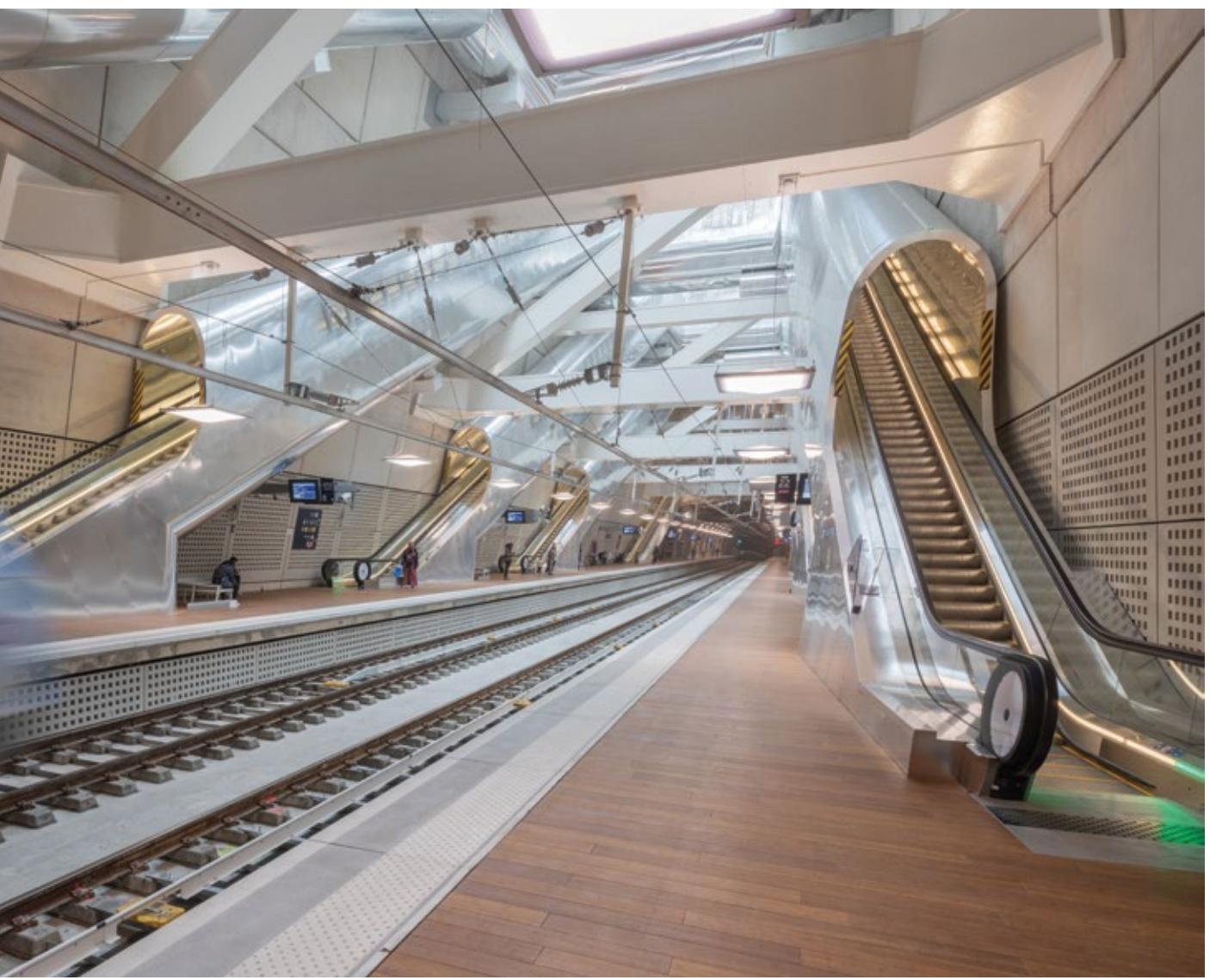
Construction cost

€450 million

Delivery

2024





16

Avignon high-speed train station

France

Client

Réseau Ferré de France / SNCF Gares & Connexions

Project management

SNCF Gares & Connexions / AREP Group

AREP Group's mission

Concept design of the new passenger building and exterior spaces
Complete service from project creation and concept design
to practical completion

Partners

Desvigne and Dalnoky landscape architects

Cost

€24.5 million

Floor area

5,000 sqm / Site: 20 ha / Green spaces: 15 ha

Delivery

2001

Environmental metrics and solutions – EMC2B

Energy

- All-purpose energy consumption (MWh EF / year): 4,000
- All-purpose energy consumption per sqm of floor area (kWh / sqm of floor area): 211

Materials

- Bio- and earth-based materials: 300 tonnes
Timber (in tonnes): 50, stone (in tonnes): 250
- Bio- and earth-based materials (kg / sqm of floor area): 16
Timber (kg / sqm of floor area): 3, stone (kg / sqm of floor area): 13

Carbon

- Eges PCE (tCO₂ eq): 26,000 Eges PCE (indicator of GHG emissions of construction materials and equipment)
- Carbon intensity per floor area (kg CO₂ eq / sqm of floor area): 1,368
- Carbon intensity per passenger (kg CO₂ eq / passenger): 7.22

Climate

- Albedo: 0.22

Biodiversity

- Green and / or pervious surfaces (in sqm): 49,000
- Tall fruit trees: 330
- Preserved tall fruit trees accounted for in the 330: 100
- Percentage of green and / or pervious surfaces: 31
- Number of trees per hectare: 21









Marseille Saint-Charles train station

France

Client

SNCF Gares & Connexions

Project management

SNCF Gares & Connexions / AREP Group / Atelier Roberta

AREP Group's mission

Station design, engineering, environmental strategy

Delivery

2035 (planned)

Environmental metrics and solutions – EMC2B

Energy

- All-purpose energy consumption: 4,226 MWh/year
- On-site renewable energy production: 520 MWh/year; 25% of the hall roofs covered with PV panels

Materials

- Reused materials: 2,911 tonnes
- Bio-based materials: 3,730 tonnes
Represents 30% of the total weight of the halls (wood structure)

Carbon

- Global energy carbon footprint (Ic global energie): 13,734 tonnes CO₂ eq

Climate

- Albedo: 0.40

Biodiversity

- Green or permeable surfaces: 9,907 sqm (23% of the project area)





Paris Austerlitz train station France

Client

SNCF Gares & Connexions

Project management

SNCF Gares & Connexions / AREP Group / Altarea /
Wilmotte & Associés / AE 75 / Serted

AREP Group's mission

Restoration of the large passenger concourse, restructuring
of intermodal connections, and modernisation of all station areas

Costs

€400 million for the complete modernisation of the station

€100 million for the restoration of the large passenger concourse

Surface area

17 000 sqm of renovated glass roof

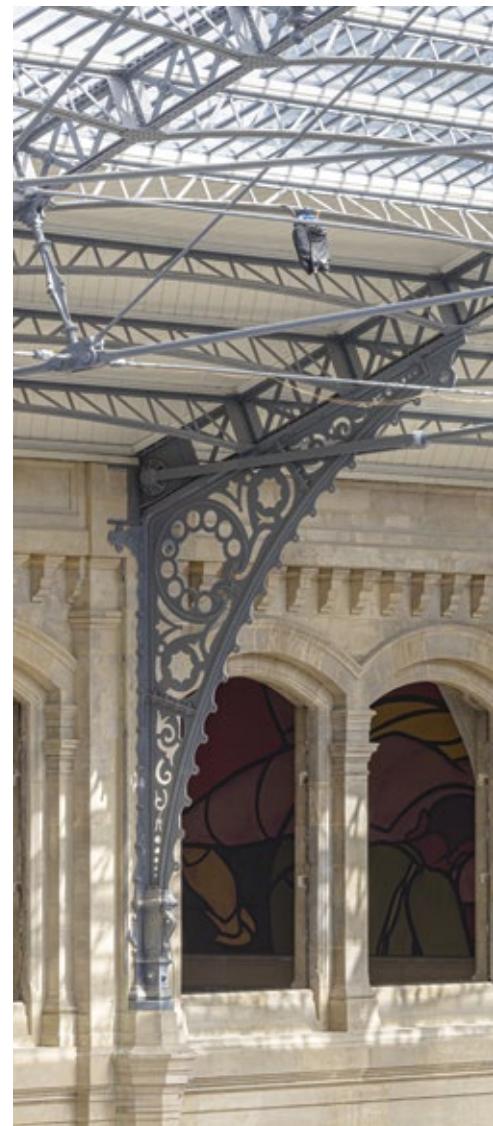
Dimensions

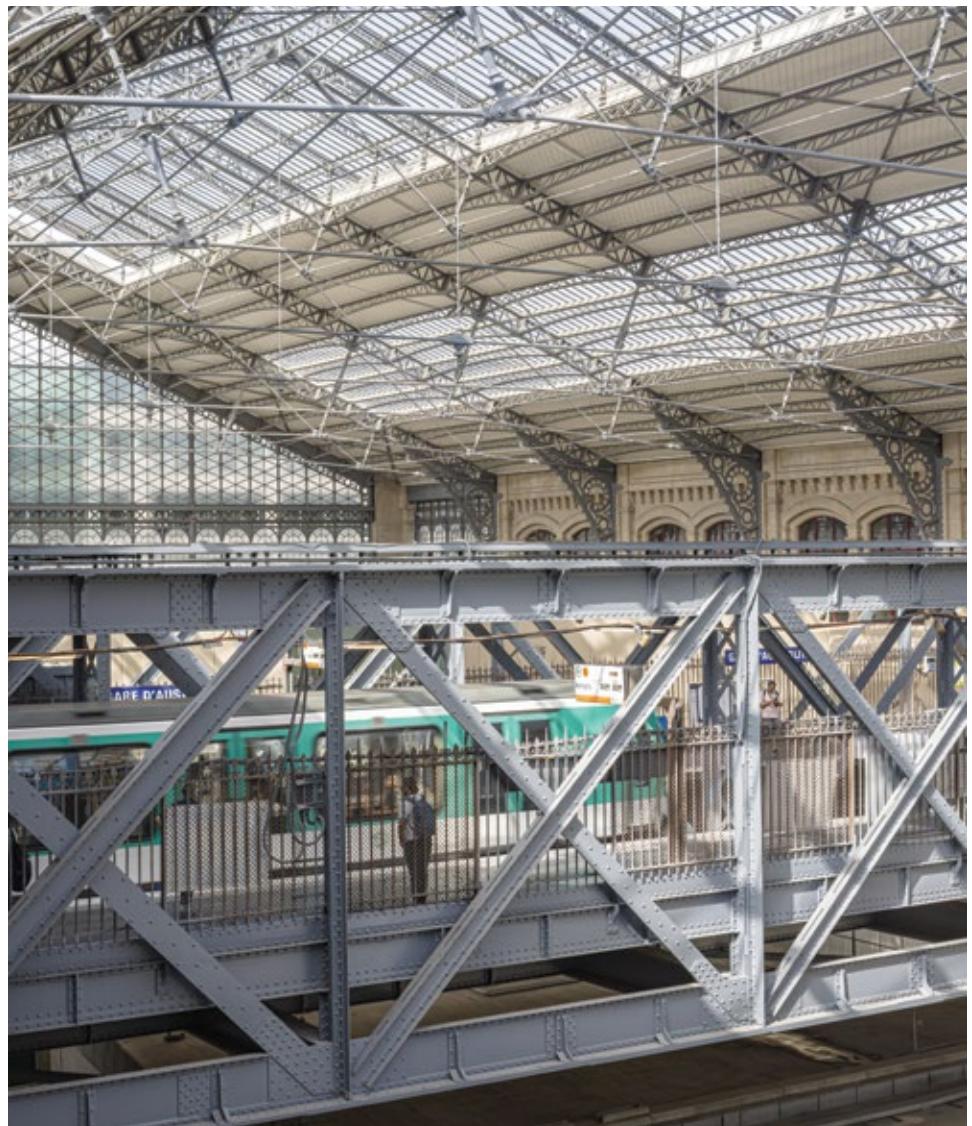
Main hall: 52 m wide x 280 m long x 35 m high

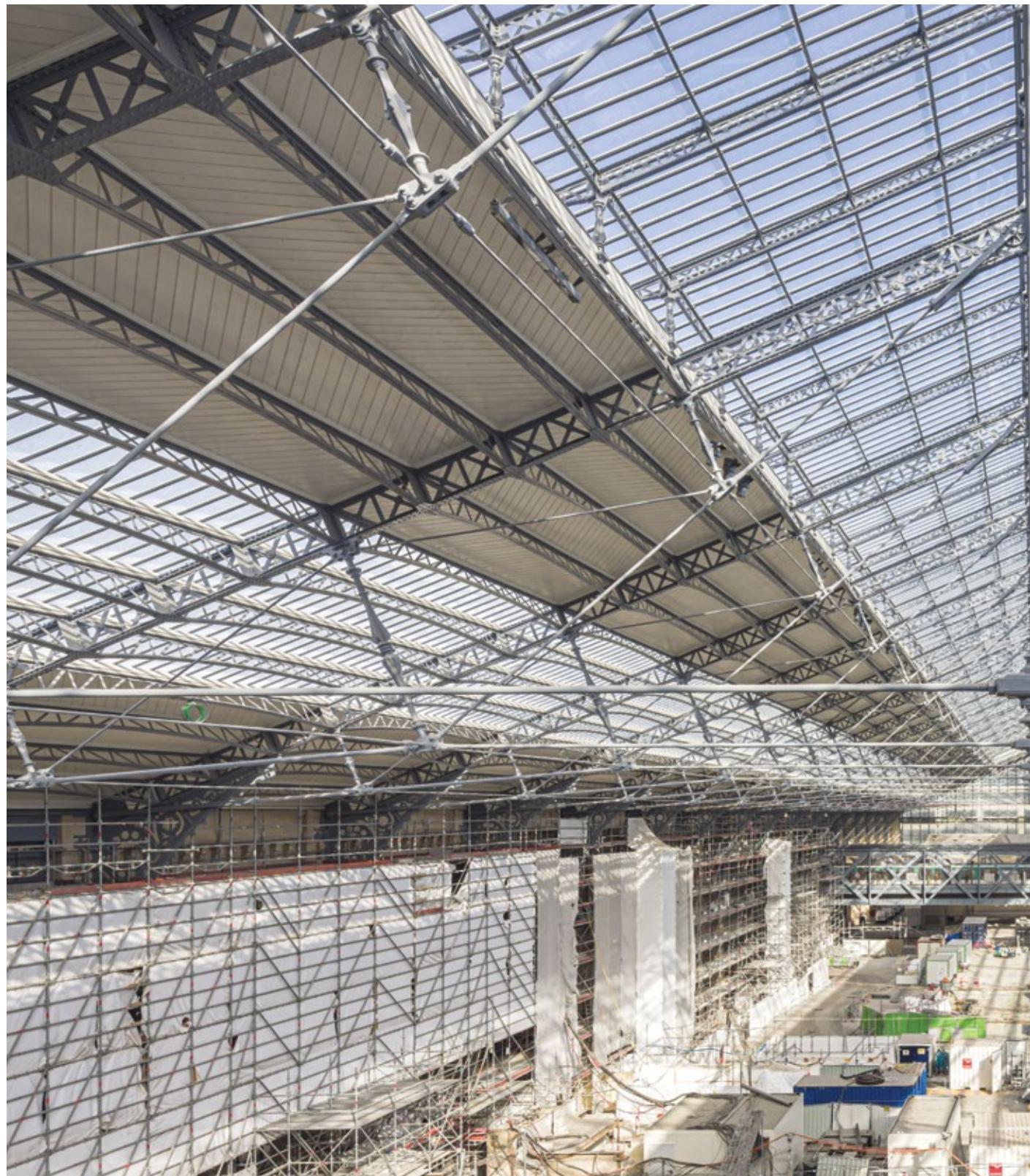
Delivery

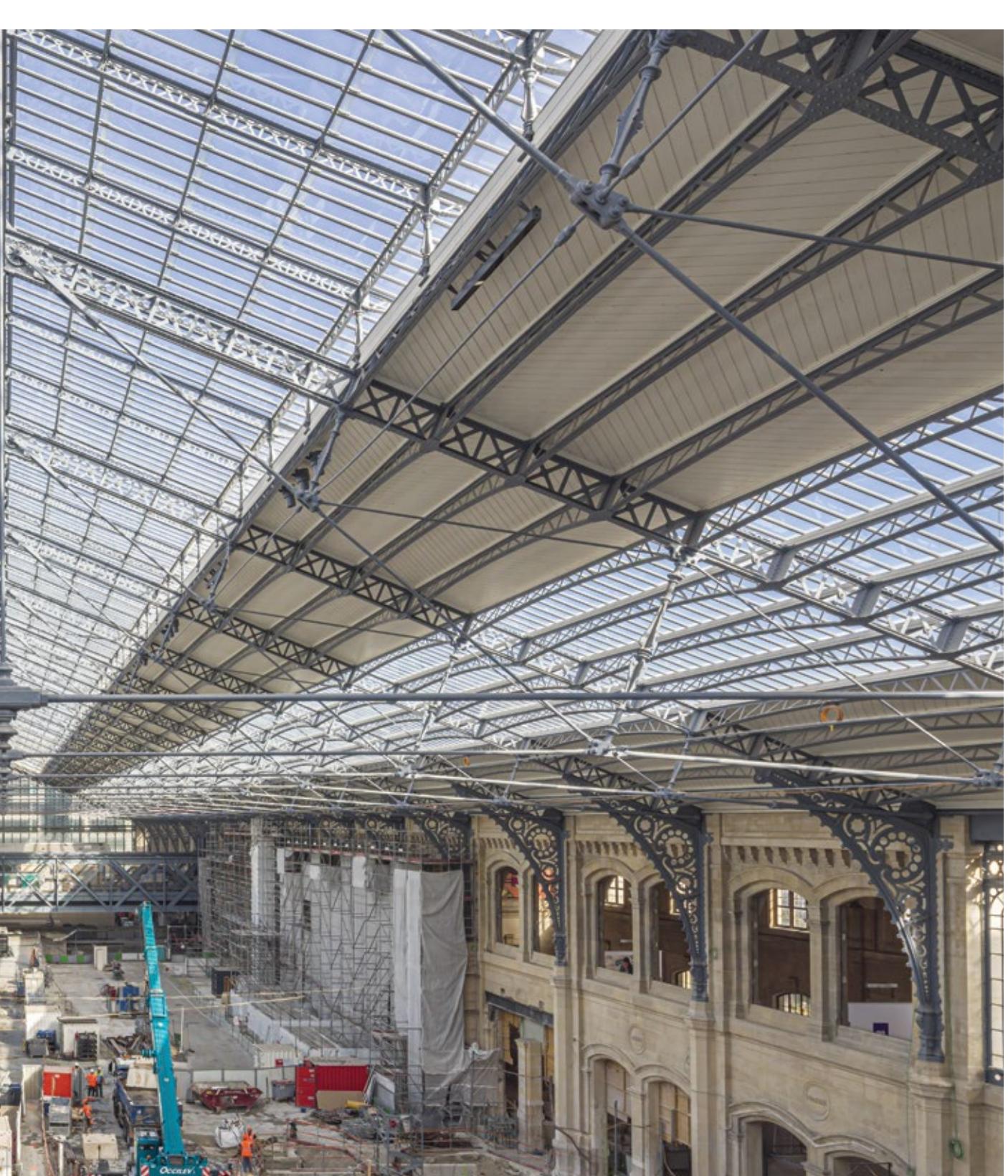
The glass roof: 2024

Station and forecourt redevelopment: 2027









Nice Airport train station

France

Clients

SNCF Gares & Connexions (coordination) / SNCF Réseau

Project management

SNCF Gares & Connexions / AREP Group

AREP Group's mission

Station design, landscape design, engineering, environmental strategy

Delivery

2030 (planned)

Environmental metrics and solutions – EMC2B

Energy

- Reduced thermally treated surface area: only 21%
- Production of 450 MWh of solar-powered energy (car park + canopy)

Materials

- Bio-based materials : 286 tonnes of timber for the facades (car park + passenger building)
- Re-used materials : include 0.65 tonnes of ballast for the furniture and retention basins: 990 kg of solid oak and 127.66 kg of railroad ties

Carbon

- Installation of 40 EV charging points, with 157 spaces fitted for future use
- Creation of a 480 spaces bicycle park

Climate

- Bioclimatic features for summer comfort: south-facing façades fitted
- Premises fitted with natural ventilation openings and a high-albedo site [0.39] to offset the urban heat island effect
- Protected outdoor spaces : creation of a canopy and planting of 150 trees to maximise shading (59% of the outdoor areas shaded)
- Indoor and outdoor sheltered areas: shaded and ventilated passenger walkways from the station entrance to the platforms
- 18% of the premises will be cooled during heatwaves
- Creation of storm water basins and sheltered areas
- 1500 m³ rainwater retention capacity

Biodiversity

- 226 sqm of planted swales and 990 sqm of green platforms
- Tall fruit trees: 330
- Percentage of green and / or pervious surfaces: 31
- Number of trees per hectare: 21









Grand Passenger Halls

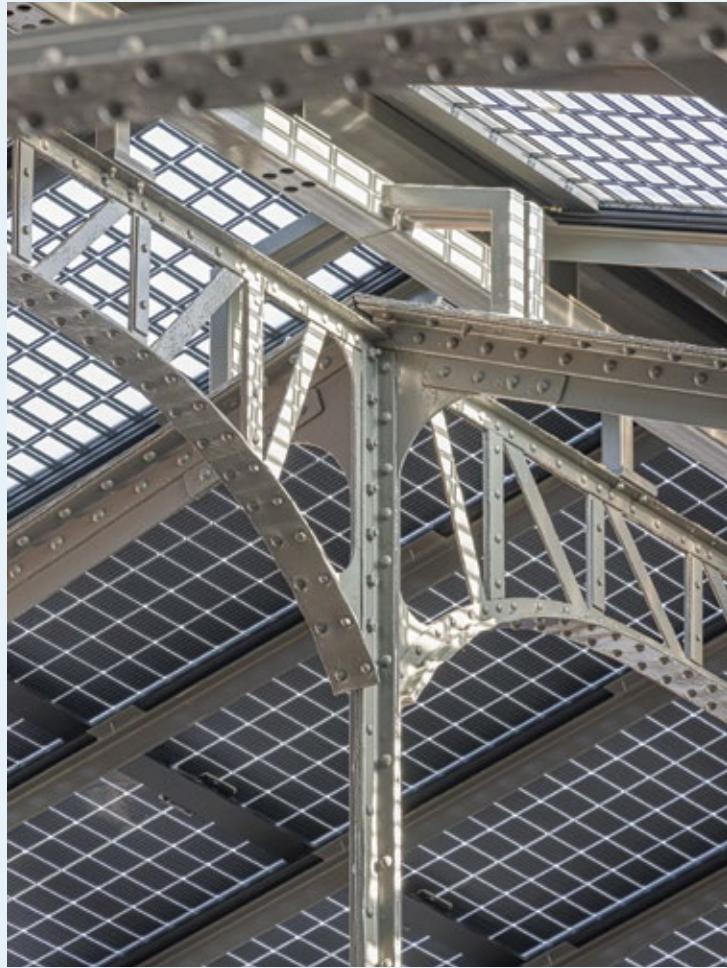
Our renovation projects draw inspiration from our heritage, renewing and extending the lessons learnt from these structures, which combine multiple functions while maximising the role of each element within the whole.

Symbols of lightness and technical expertise, from the grand passenger hall to the sheltered platforms, the roofs are the very expression of material sufficiency.

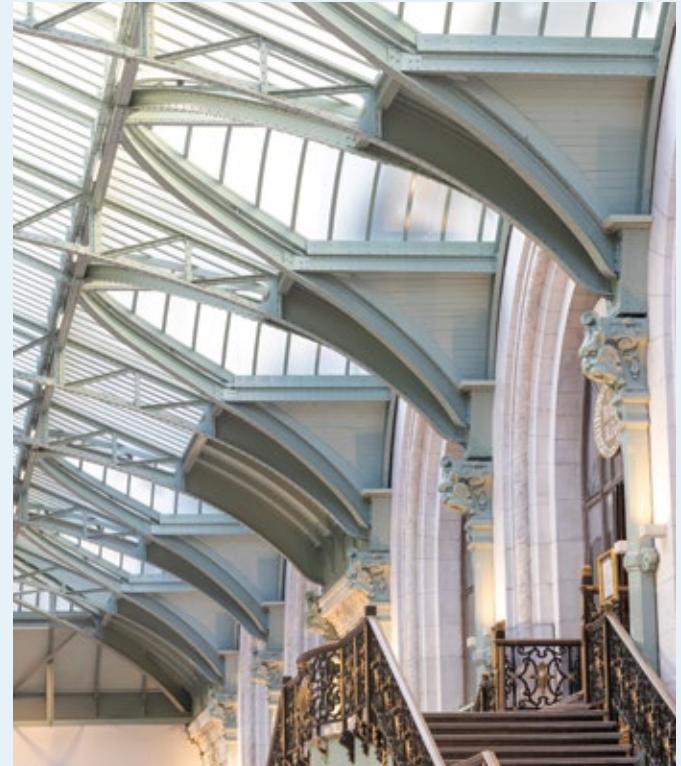
With their capacity for photovoltaic glazing, these versatile structures have real energy potential and could also be used to support urban wind power systems in the future.



Renovation of the Grand Passenger Hall
in Valence, France



Grand Passenger Hall solar-powered in Angoulême,
France



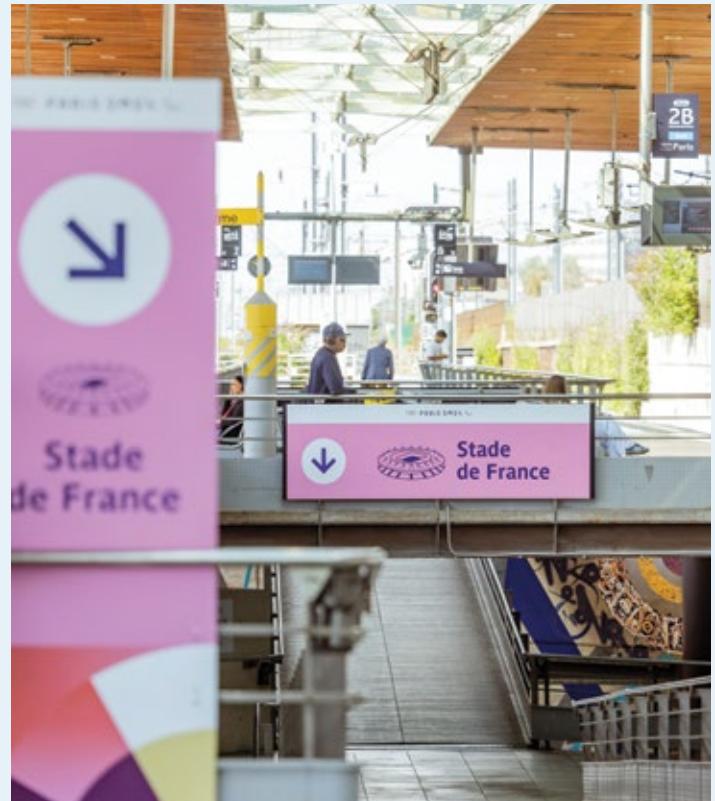
Renovation of the Small Passenger Hall in Paris Lyon train station, France

Signage

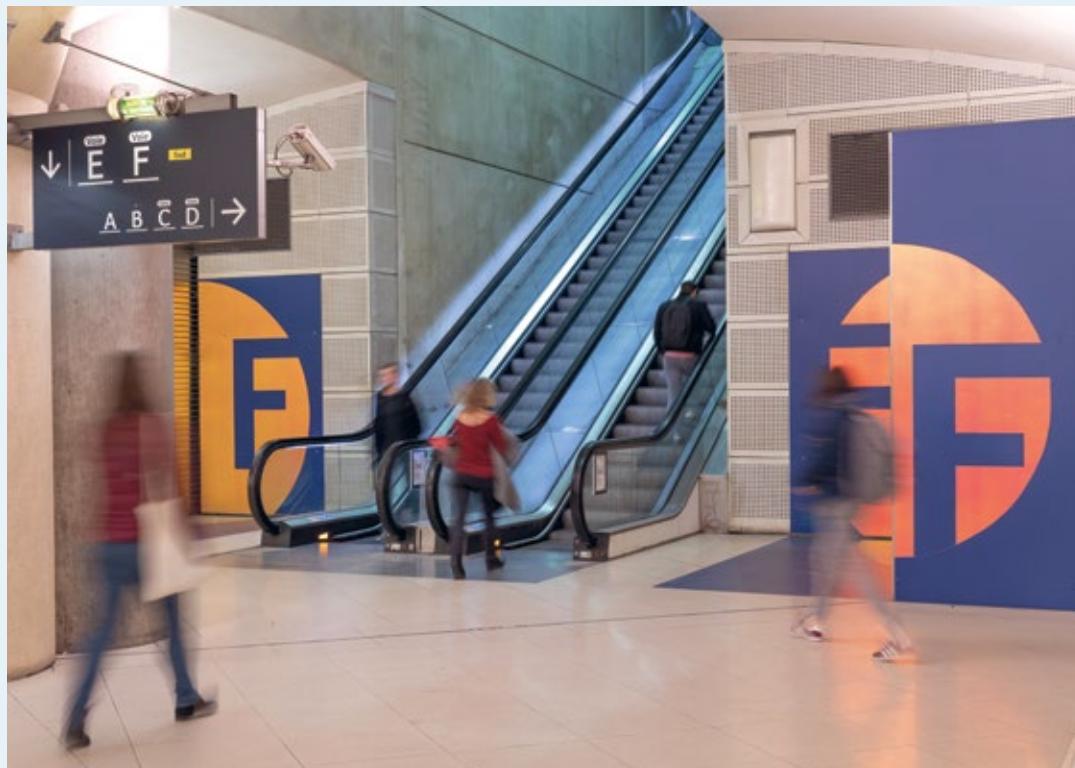
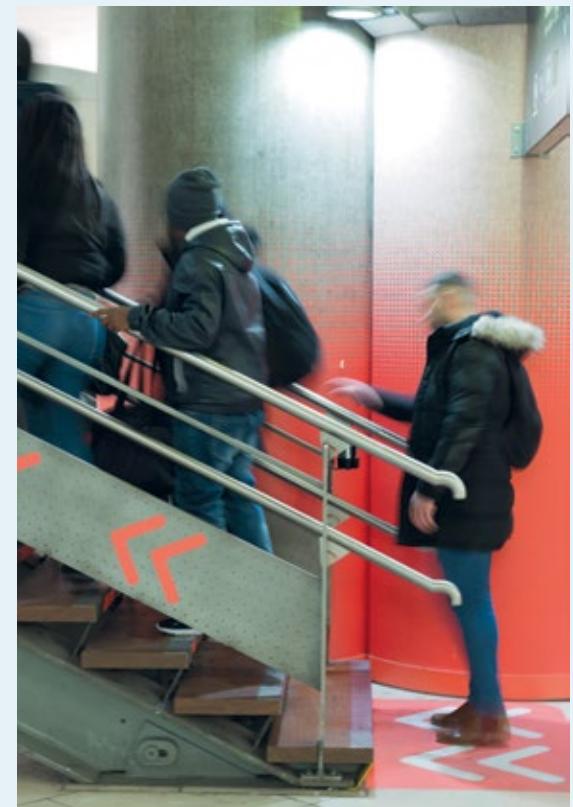
Our signage approach is closely linked to the spaces that people use every day.

Through a set of signs (pictograms, text, colours, visuals), we punctuate routes, formalise landmarks and highlight functions. We aspire to create a universal language, adapted to the increasingly diverse profiles of users.

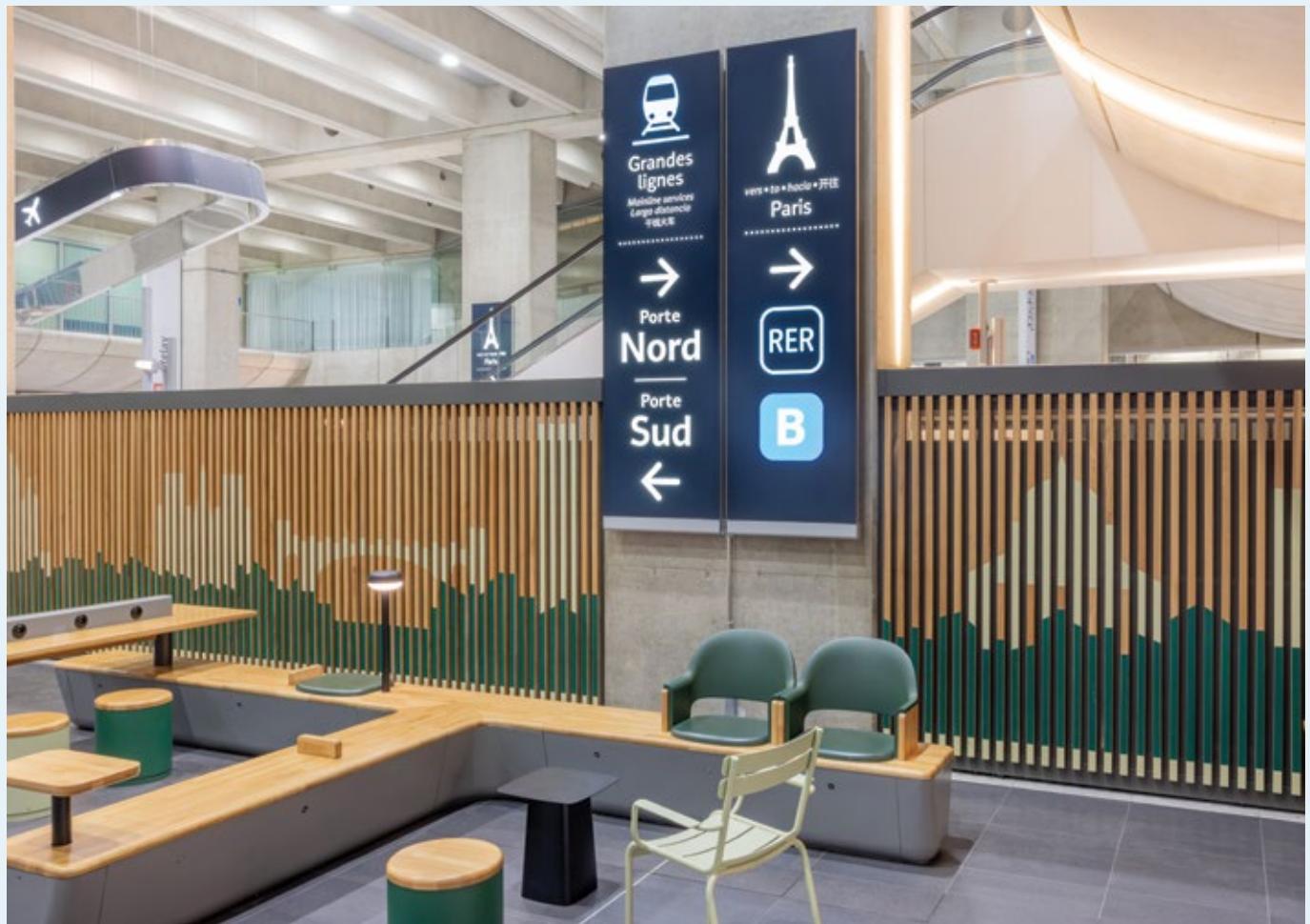
We design graphic atmospheres that guide people, reassure them and enhance spaces. We create a common thread throughout space, facilitating movement and expressing identity.



Signage in Paris train stations guided spectators during the major sporting events of summer 2024, France



Mass transit stations signage helps managing passenger flows, particularly in busy stations, France



Signage at Charles de Gaulle Airport Terminal 2, France

Footbridges

AREP Group's approach to footbridges is based on two principles. The first one is a structural and functional commitment to linking railway bridges to a common local framework. The second one is the careful adaptation of the structure to its environment in terms of its uses, history, built heritage and landscape.

Technical structures involve numerous overlapping constraints. They demonstrate our ambition: to take responsibility, as designers, for the full complexity of the contexts in order to provide users with a simple, seamless experience.



Footbridge for cyclists and pedestrians in Béthune, France



Urban footbridge for cyclists and pedestrians in Delémont, Switzerland (proposal)



The Charenton-Bercy urban footbridge, a new public space designed according to the EMC2B principle, France



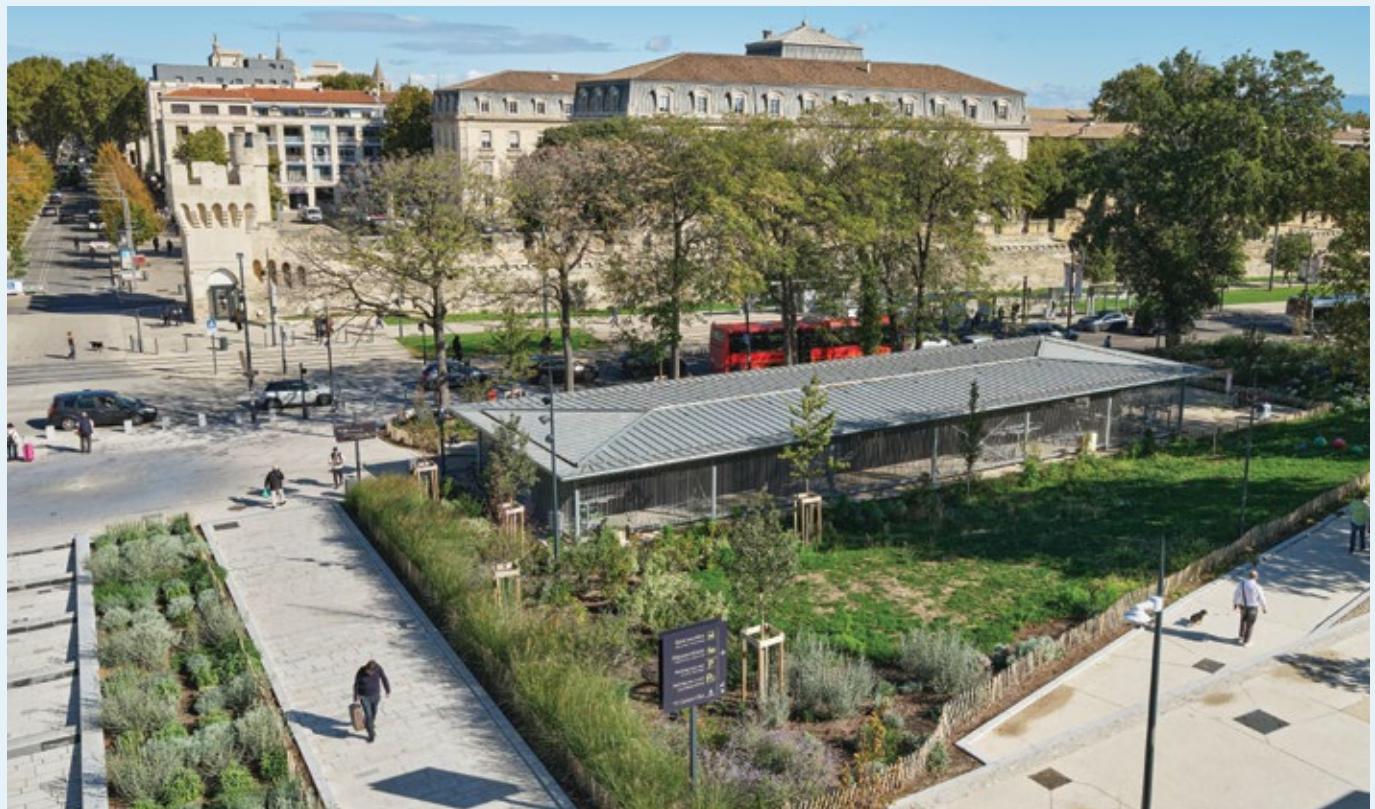
A new urban connection between the city centre and the Gave river in Pau, France

Public Spaces

Committed to soil desealing, decarbonisation, and resilience, we monitor, research, and innovate to maximize the potential of existing resources and preserve them.

Our expertise has historically been linked to mobility spaces, covering a broad spectrum of activities from upstream strategic studies to the transformation and enhancement of public spaces.

Our goal is to identify the ingredients and local conditions needed to support stakeholders in initiating a transition towards sustainable models that address both mitigation and adaptation challenges.



The forecourt of Avignon Centre Station, a mobility garden, France
Balancing various forms of mobility, ensuring smooth travel flows, and creating a garden to calm and beautify the urban space while re-establishing a direct connection with the city



AREP supports the city of Pré Saint-Gervais in reconnecting a public square with its surroundings, by designing a green public space that is permeable and flexible for all uses, France



New urban mobility hub of Cagnes-Sur-Mer, with its new station, its landscaped esplanade and its adjoining car park, France

Solar

AREP Group invents, designs and develops new solutions for French and international rail operators, promoting the deployment of renewable energies in the railway ecosystem.

Our work is being translated into action through our current projects to solarise large passenger halls. It is also reflected in the development of several innovative designs combining frugality, aesthetics and ease of operation, such as solar-powered platform shelters and deployment of photovoltaic panels on railway tracks.



The new solar shelter developed by AREP, combining frugality, aesthetics, and ease of operation, France



Reversible photovoltaics on railways, France
With the SOLVEIG system, AREP is experimenting
with the reversible deployment of solar panels
on railway tracks



Photovoltaic canopies in Mouchard train station, France

Casa Port train station

Morocco

Client

Moroccan Railways

Project management

AREP Group / Groupe 3A

AREP Group's mission

Complete service from project creation and concept design to practical completion

Cost

€16 million (excl. VAT)

Floor area

Station: 2,500 sqm / Retail: 1,000 sqm / Underground car park: 380 parking spaces

Delivery

2014

Environmental metrics and solutions – EMC2B

Materials

- Use of readily available and commonly used materials to avoid supply problems

Carbon

- Locally-sourced materials, production of the DUCTAL® moulds for the mashrabiya, on-site shaping and assembly of the frame and structure

Climate

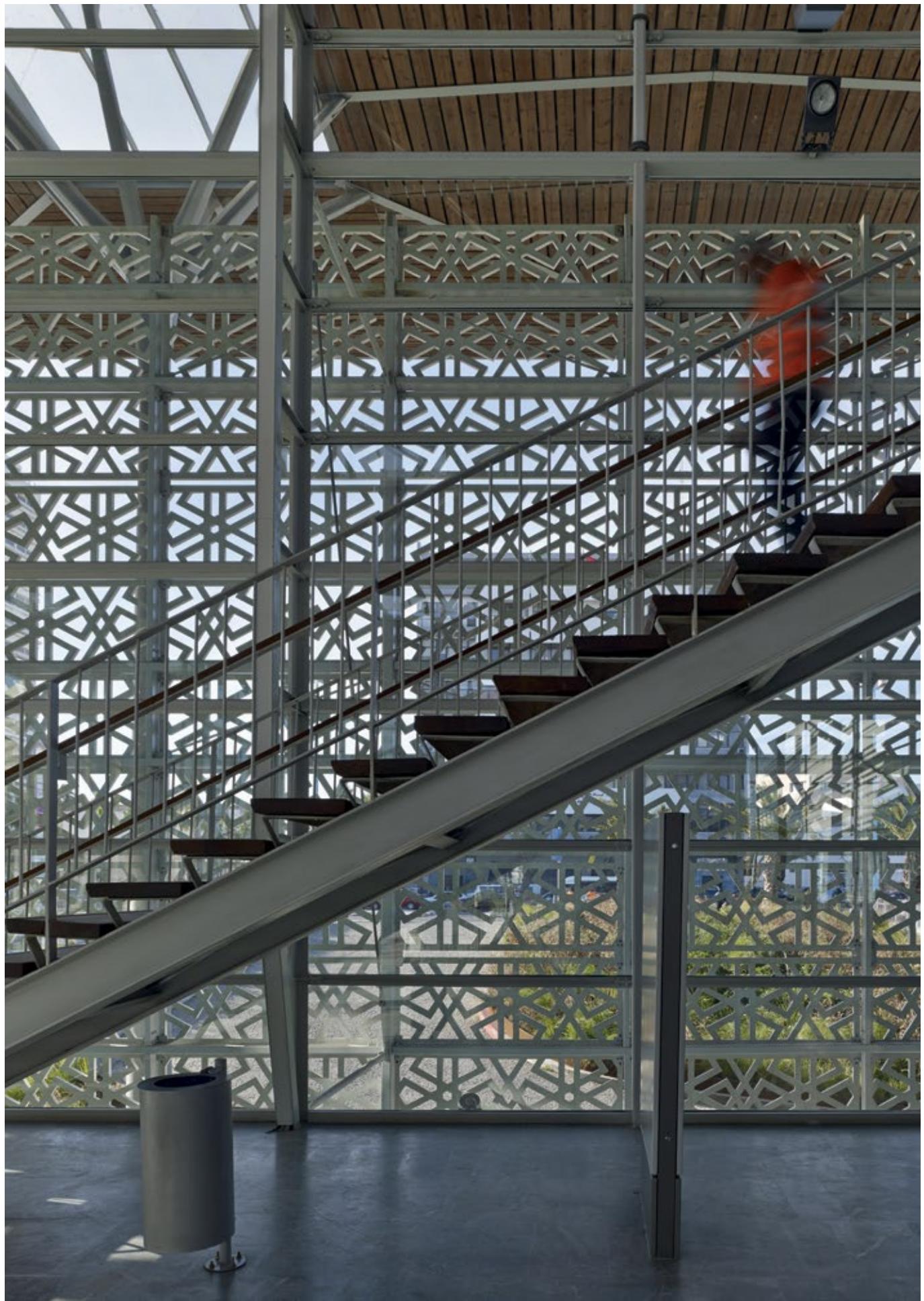
- Mashrabiya on the façade to maximise the amount of natural light, while protecting against grazing light
- Cantilevered roof to create shade
- Bringing natural lighting down to the underground retail areas and facilitating the circulation of fresh air with the underground car parks

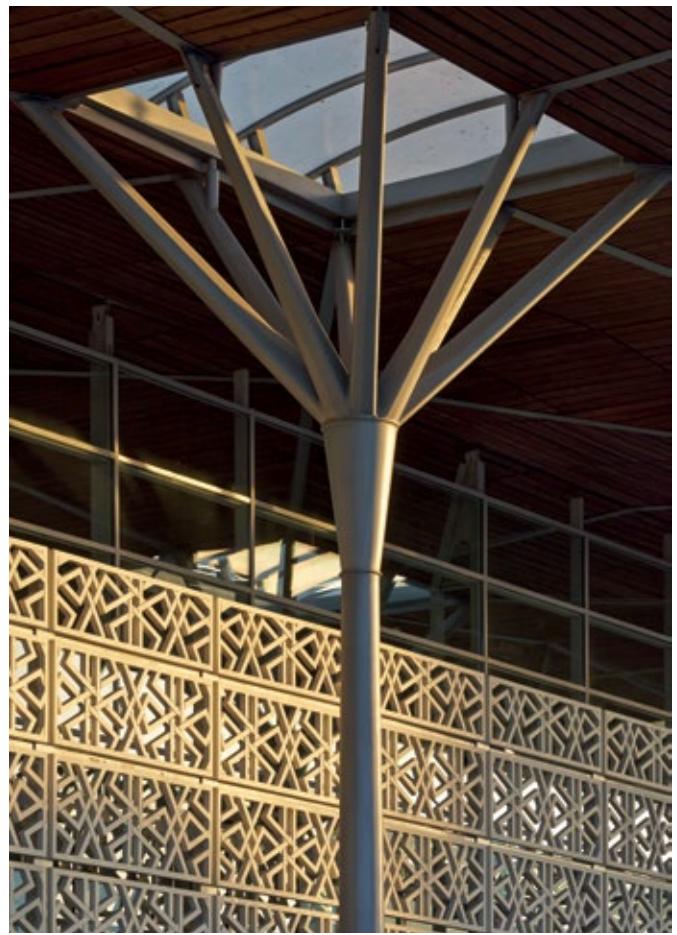
Biodiversity

- Lush garden with local species between the forecourt and the lower level









Hanoi HSR train station Vietnam

Client

World Bank

Project management

AREP Group South Asia / Rail Concept / Espelia / Berim / Insuco

AREP Group's mission

Concept Masterplan Hanoi Ngoc Hoi HSR Station Complex

Delivery

2024





Shanghai South train station

China

Client

Chinese Ministry of Railways / City of Shanghai

Project management

AREP Group / ECADI Associés (East China Architectural Design and Research Institute)

Partner

MaP3

AREP Group's mission

Concept design of the new passenger building

Floor area

47,000 sqm

Delivery

2006

Environmental metrics and solutions – EMC2B

Energy

- All-purpose energy consumption: 24,000 MWh FE / year
- All-purpose energy consumption per sqm of floor area: 200 kWh / sqm of floor area

Carbon

- Construction Carbon Index: 150,000 tCO₂ eq
- Carbon intensity per sqm of floor area: 1,250 kg CO₂ eq
- Carbon intensity per passenger: 5kg CO₂ eq

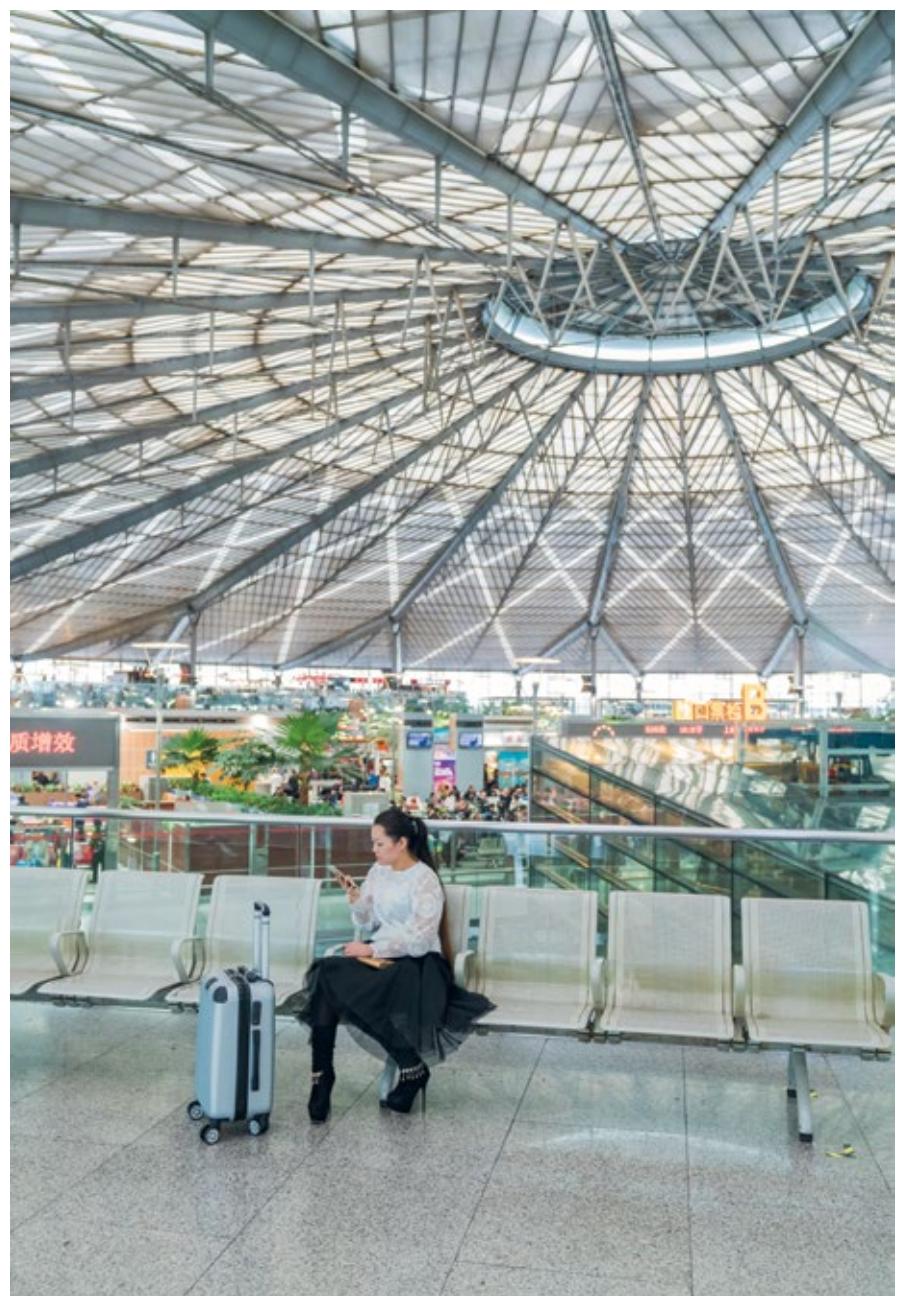
Climate

- Albedo: 0.20









Wuhan train station China

Client

CRC China Railways Corporation (formerly MOR)

Project management

AREP Group in partnership with Chinese Institute of Railways n° 4

Partners

MaP3 (metal structures) / SNCF IGOA (civil engineering)

AREP Group's mission

Concept design of the passenger building

Cost

€400 million (excl. VAT)

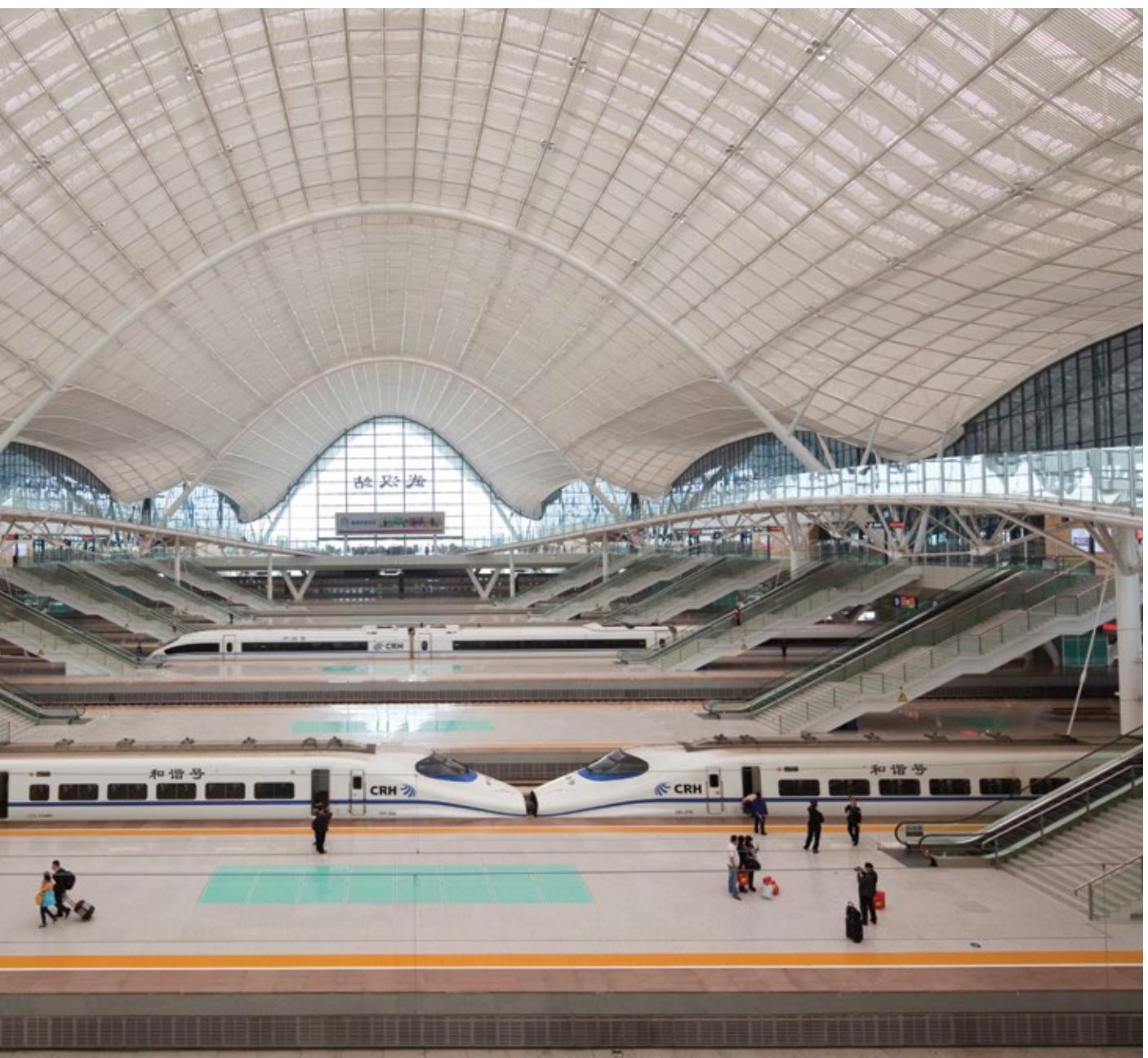
Floor area

240,000 sqm, including 70,000 sqm of enclosed public concourse

Delivery

2009





24

Tongzhou train station China

Client

Beijing Jingtou Transportation Hub Investment Co., Ltd

Project management

Beijing Jingtou Transportation Hub Investment Co., Ltd

AREP Group's mission

Concept design of the station, roof, interior spaces and urban development around the station

Partners

Beijing General Municipal Engineering Design & Research Institute Co., Ltd / China Architecture Design and Research Institute / China Railway Design Group Co., Ltd

Design cost

€12.5 million (excl. VAT)

Works cost

€3,867 million (excl. VAT)

Floor area

314,000 sqm overground floor area / 1,280,000 sqm underground floor area

Delivery

2024

Environmental metrics and solutions – EMC2B

Energy

- Roof components allowing to save 486,000 kWh / year of electricity for artificial lighting
- Regulation of heat absorption and maximisation of natural light by using a sun shading system installed on the roof to reduce the heat load by 5,200,000 kWh / year
- Lower ETFE roof height allowing to save electricity consumption for heating
- 21,000 sqm of photovoltaic panels

Materials

- Use of ETFE for a lightweight structure

Carbon

- Optimisation of the structure to reduce the quantity of steel and thereby the carbon footprint of the project

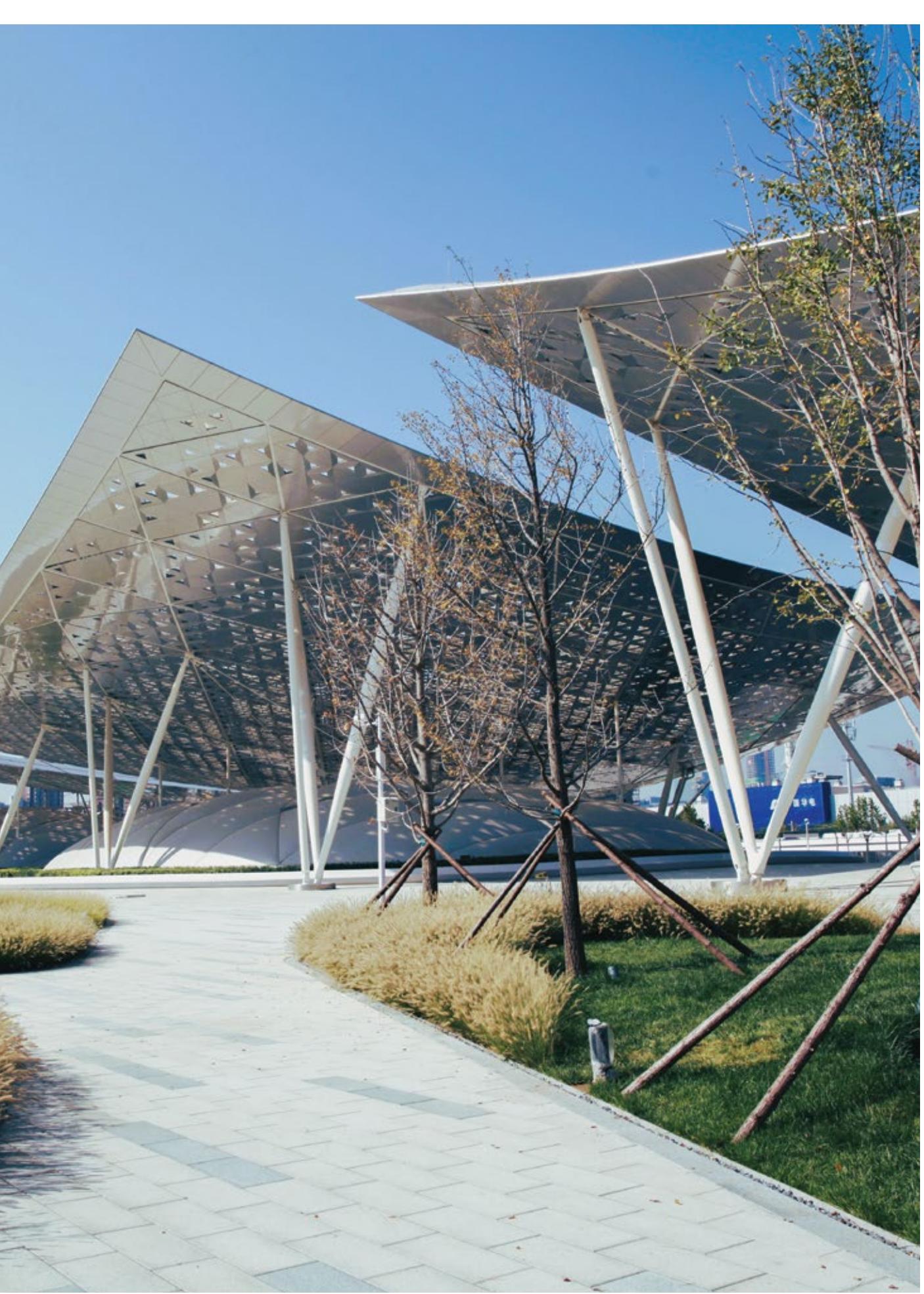
Climate

- Improvement of thermal comfort through natural ventilation

Biodiversity

- Roof accommodating a park with local tree and plant species









Qinghe train station Beijing, China

Distinction

AFEX Grand Prize Award finalist (2019)

Client

CRC China Railways Corporation (formerly MOR)

Project management

AREP Group in partnership with Zhong Tié / Chinese Institute of Railways

Partner

MaP3

AREP Group's mission

Concept design of the passenger building

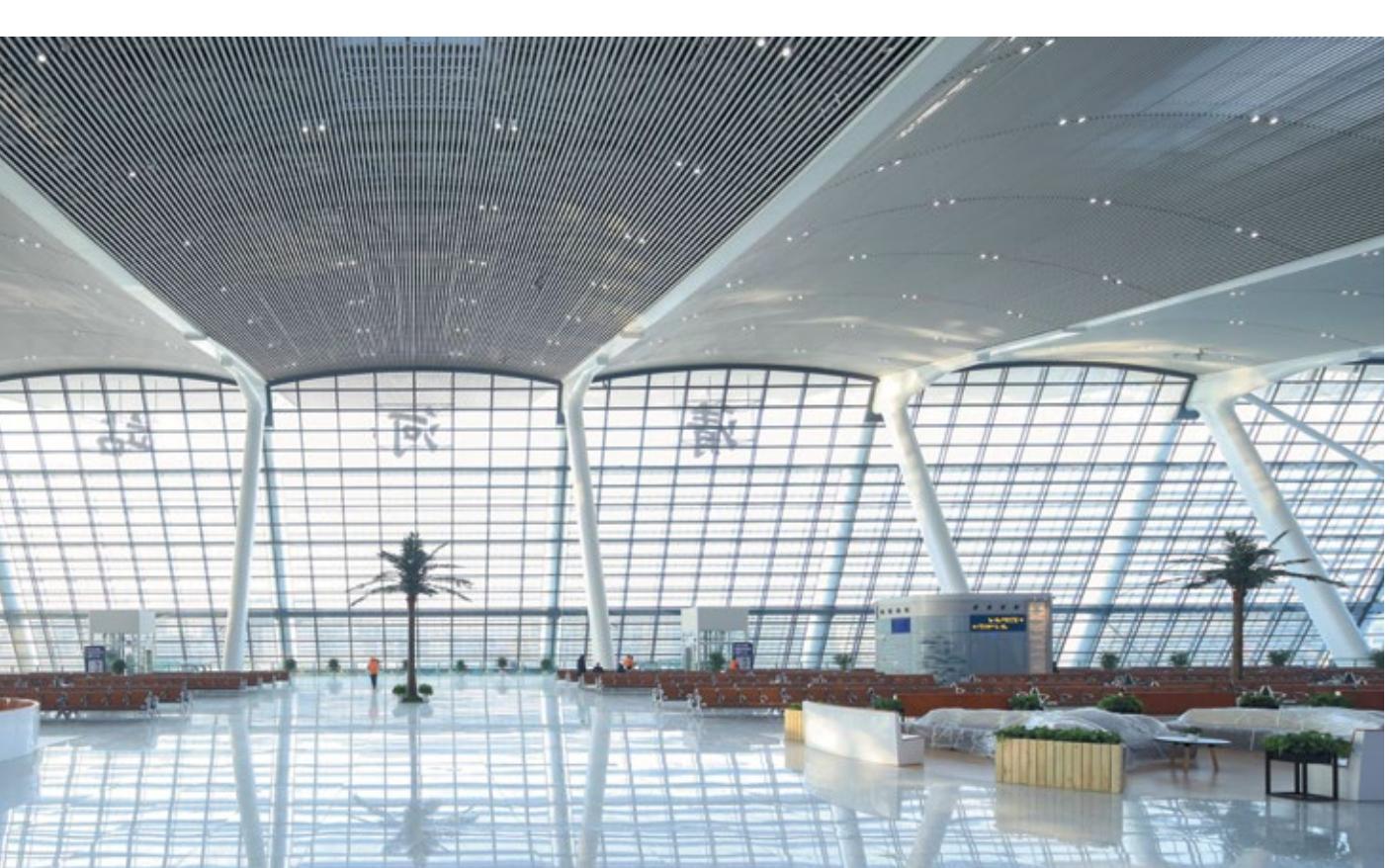
Floor area

Train station: 109,000 sqm, including enclosed public concourse of 49,000 sqm

Delivery

2019





Saint-Malo ferry terminal France

Client

SEM Breizh, representative of the Brittany Region

Project management

AREP Architectes / AREP Group

Partners

EGIS / Madec Architecture / LALU (landscape architects): ATIXIS
(fire protection)

AREP Group's mission

Concept design of the new ferry terminal and exterior spaces
Complete service from project creation and concept design through
to practical completion

Cost

€27.5 million (excl. VAT)

Floor area

7.5 ha / Building floor area: 7,300 sqm / Green spaces: 8,100 sqm

Delivery

2026

Competition won in 2021

Environmental metrics and solutions – EMC2B

Energy

- All-purpose energy consumption: 190 MWh / year
- Energy from renewable power sources: 190 MWh / year

Materials

- Reclaimed materials: 460 tonnes
- Bio-based and earth-based materials: 1,200 tonnes (870 tonnes of timber, 330 tonnes of stone)

Carbon

- Construction Carbon Index: 8,900 tonnes CO₂ eq
- Bike park with a capacity exceeding regulatory requirements

Climate

- Increase in the average albedo of the whole project from 0.07 (existing) to 0.16

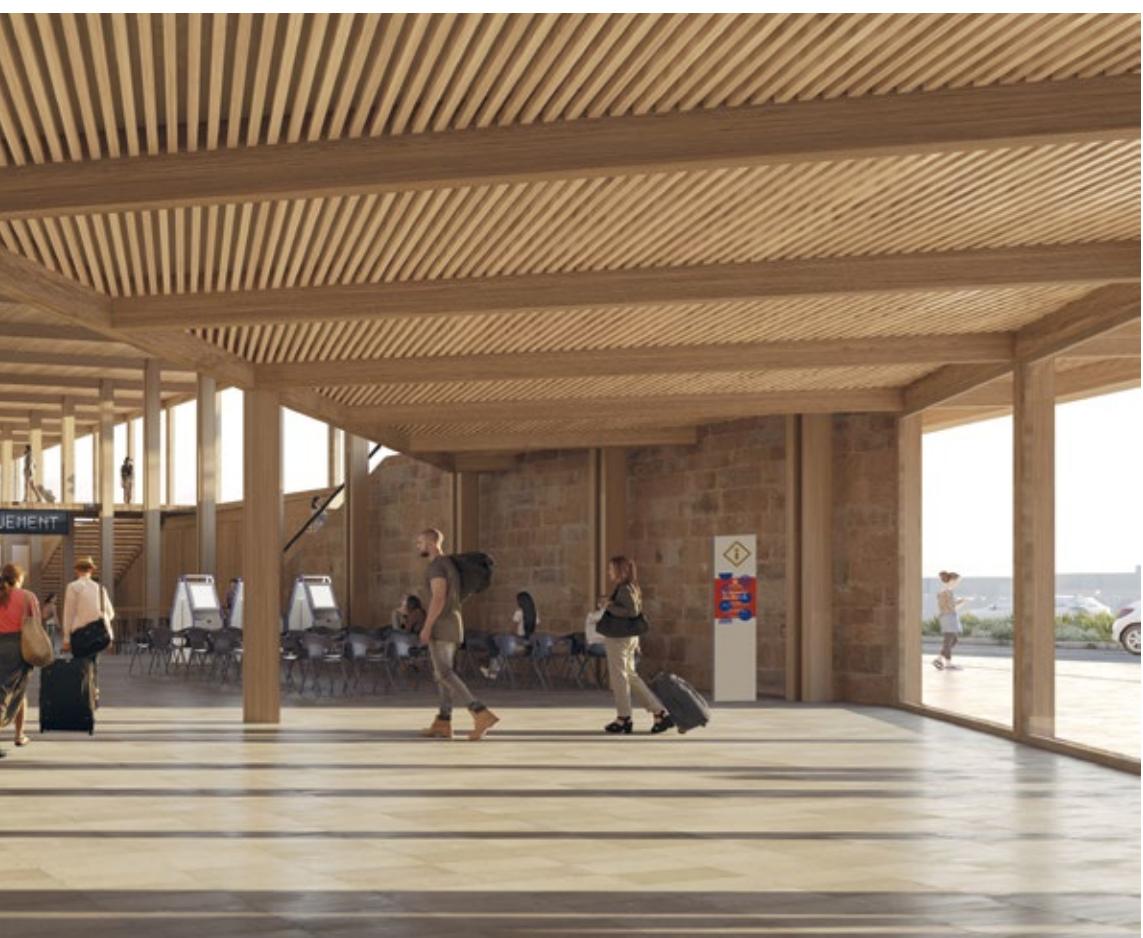
Biodiversity

- Green and / or pervious surfaces: 15,000 sqm (21% of the project floor area)
- Tall trees: 120









Luxembourg Railways administration building

Luxembourg

Client

Luxembourg Railways

Project management

Ballinipitt / AREP Architectes / TPF / Idès

AREP Group's mission

Architecture, spatial planning concept design, landscape design, acoustics, and lighting

Construction cost

€74 million

Floor area

15,000 sqm

Delivery

2027 (planned)

Environmental metrics and solutions – EMC2B

Energy

- 25% of the energy needed is solar-powered
- 15% of parking places are fitted with recharging stations

Materials

- Prefabricated bio-based materials: gabion, cross-laminated timber
- Water consumption: 3.4 m³ / pers / year

Carbon

- Priority given to local energy sources (geothermal energy, air source heat pump, etc.)
- GHG emissions linked to energy consumption during operation: 21,8 kgCO₂ eq / sqm / year

Climate

- Double skin providing acoustic and thermal insulation
- Opening windows to customise indoor comfort
- Atrium providing natural ventilation

Biodiversity

- Created green spaces: 1,070 sqm
- 11% of the soil surface is to be unsealed





Seafrigo headquarters

France

Client

Seafrigo

Project management

Étienne Tricaud Architecture (representative) / AREP Architects / Terrell (engineering consultants) / Sero (construction management)

AREP Group's mission

From concept design to tender documentation

Cost

€20 million (excl. VAT)

Floor area

6,357 sqm

Delivery

2024

Environmental metrics and solutions – EMC2B

Energy

- BEPOS-labelled building (energy-positive building)
- Level E3 of the E+C- French label
- 600 sqm of photovoltaic roof panels
- Heat pump for low energy consumption
- Optimised natural lighting

Materials

- Bio-based timber partially used for parquet flooring

Carbon

- Level C1 of the E+C- label
- Use of low-carbon timber and concrete
- Installation of a heat pump to reduce by 70% carbon emissions
- Large bike park to encourage low-carbon mobility

Climate

- DTM (Dynamic Thermal Modelling) of part of the building to optimise thermal comfort
- Motorised solar shading that adapts to sunlight levels improving thermal comfort





Hygea former satellite factory

China

Distinctions

- French Design Award (2025)
- Muse Design Award (2025)

Client

Hygea Medical Technology Co., Ltd

Project management

AREP Group

AREP Group's mission

Building design and innovative factory refurbishment preserving heritage

Floor area

4,117 sqm

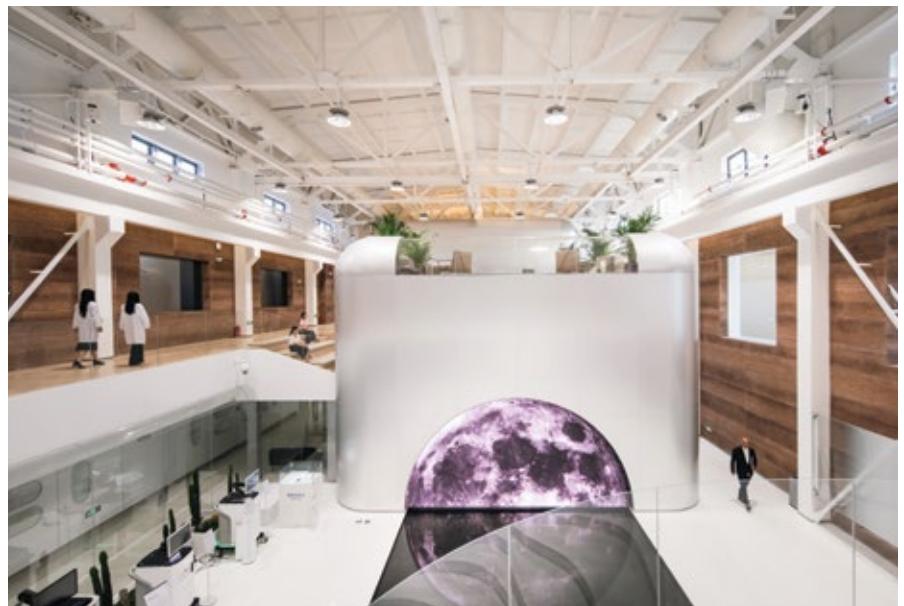
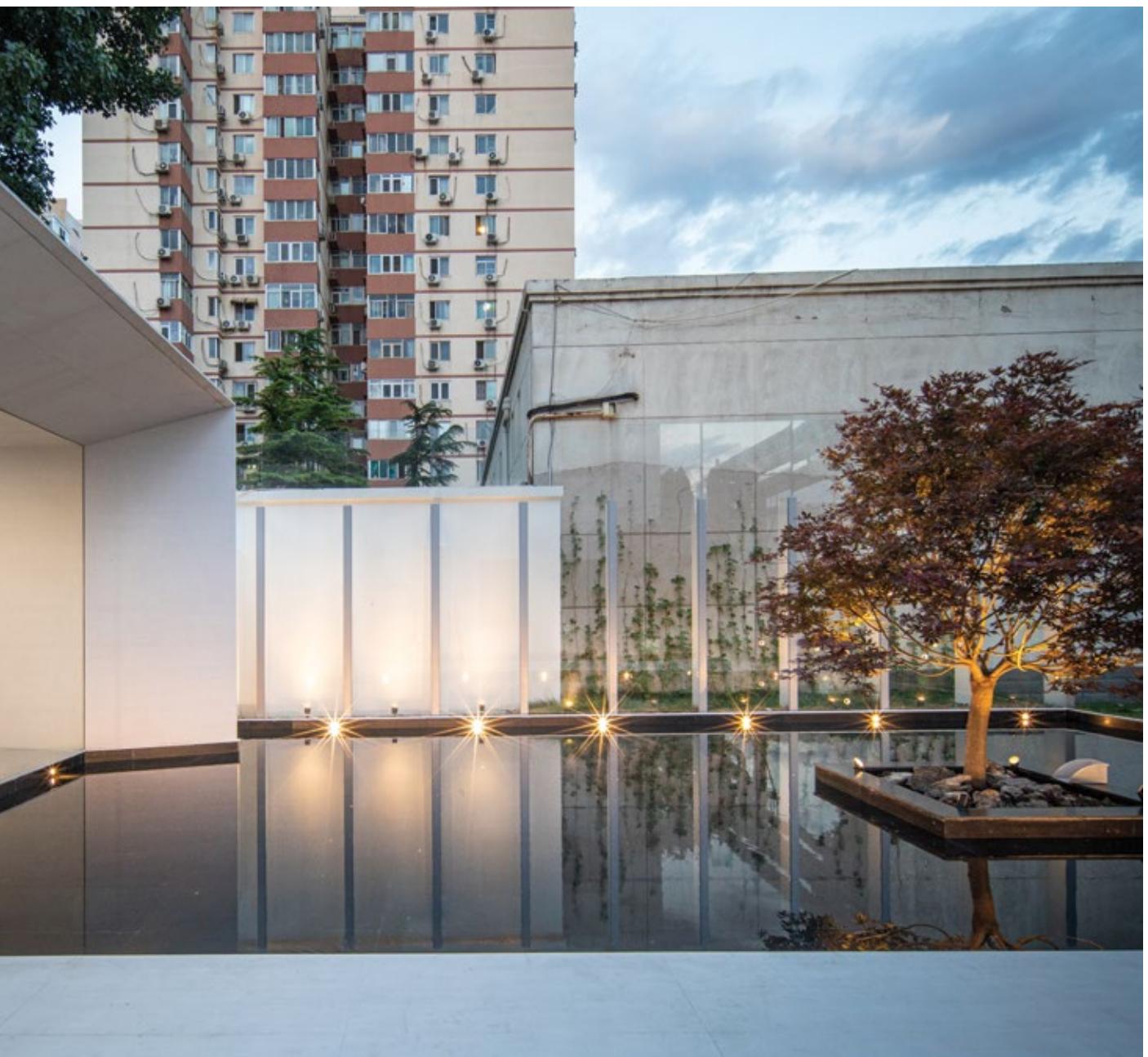
Cost

€7 million

Delivery

2024





Hangzhou Sports Tower China

Distinction

AFEX Grand Prize Award finalist (2023)

Client

Hangzhou Olympic and International Expo Center Construction
Investment Co. LTD

Project management

AREP Group

Partners

HZDI / MaP3

AREP Group's mission

Design of the building including sports amenities, an hotel, a clinic
and pedestrian routes

Cost

€180 million (excl. VAT) excluding interior fittings

Floor area

Tower: 82,000 sqm / Velodrome: 6,400 sqm / Clinic: 5,600 sqm / Press
conference area: 2,000 sqm / Retail: 9,000 sqm / Hotel: 24,000 sqm /
Car park: 51,000 sqm

Delivery

2022

Environmental metrics and solutions – EMC2B

Energy

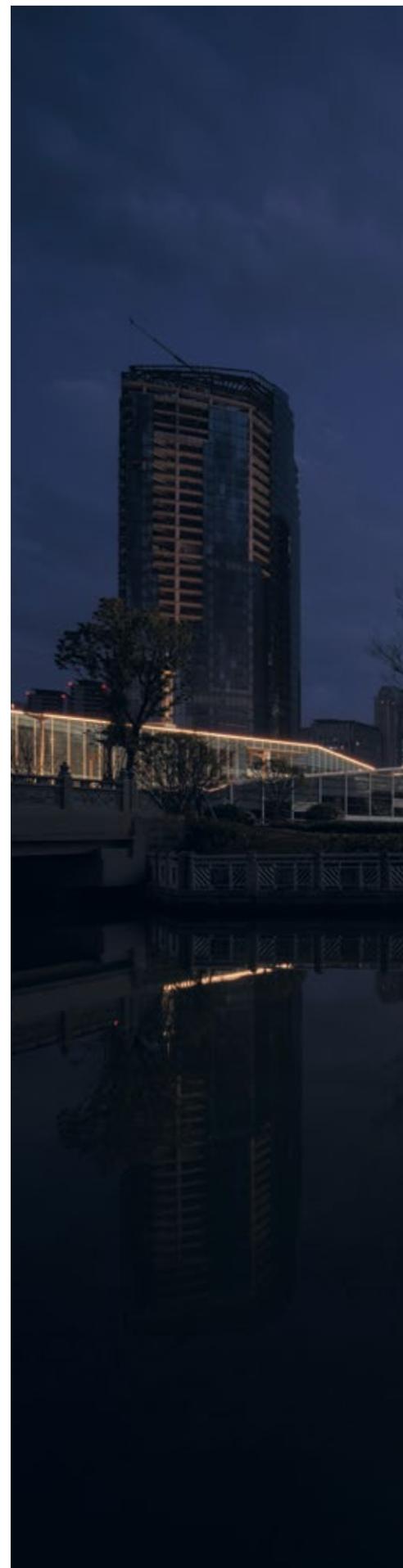
- Energy from renewable power sources (MWh / year):
2,000 sqm of solar thermal panels

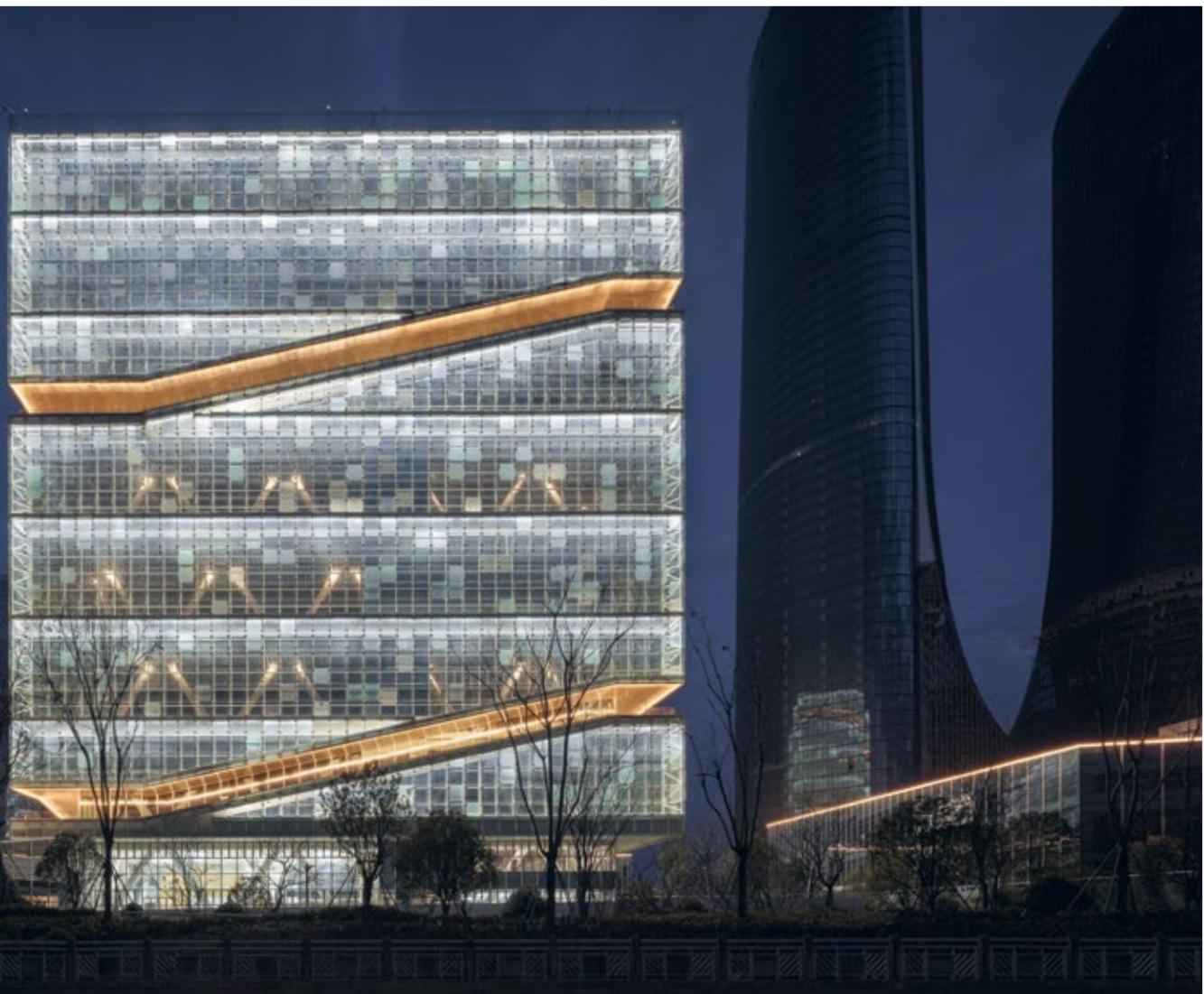
Climate

- Albedo: 0.30

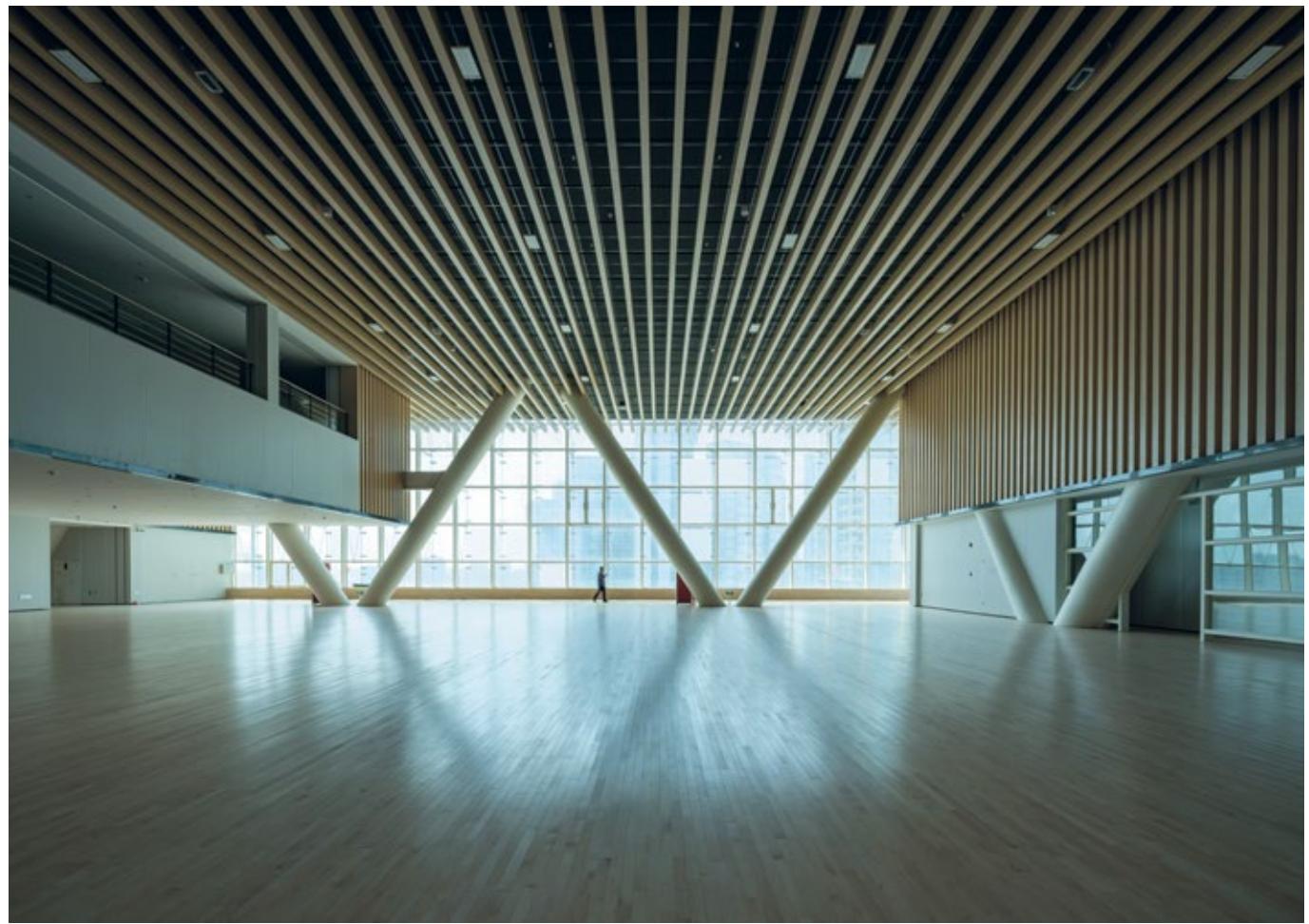
Biodiversity

- Planted and / or pervious surfaces: 13,600 sqm
- Ratio of planted and / or pervious surfaces: 23%









Urban logistics hub

France

Client

Caisse des Dépôts / La Poste Immobilier / Lyon Parc
Auto / SERL / Quartus

Project management

AREP Group / AREP Architects

Partner

EGIS (building services and equipment)

AREP Group's mission

Construction of an urban logistics and an office hub, incorporating storage facilities for reception and dispatch together with office spaces. Comprehensive service from project inception and concept design to practical completion

Cost

€28.8 million (excl. VAT)

Floor area

Buildings: 29,000 sqm

Delivery

2023

Environmental metrics and solutions – EMC2B

Energy

- High thermal performance
- 7,300 sqm of photovoltaic panels

Materials

- Timber superstructure and cladding from reclaimed materials
- Sleek and reversible building structure

Carbon

- Construction phase designed to limit nuisance: waste management, including emissions and liquid waste

Climate

- Green spaces designed as rain gardens
- Reduction of the albedo through the greening of the north-facing façade
- Rooftop plants chosen for their biofiltering properties

Biodiversity

- 9,000 sqm of green and / or pervious surfaces
- Tall trees: 230
- Biodiversity nests





Train maintenance facility

France

Client

SNCF

Project management and engineering consultancy

AREP Group

AREP Group's mission

Concept design for a train maintenance facility. Complete service from project creation and concept design to practical completion

Cost

€34.8 million (incl. VAT)

Floor area

Total project floor area: 4.4 ha / Buildings: 27,000 sqm

Delivery

2021

Environmental metrics and solutions – EMC2B

Energy

- E+C- performance level: E3 (Label Energy-positive carbon reduction)
- All-purpose energy consumption during concept design: 1,820 MWh/year
- Solar energy production during concept design: 970 MWh/year

Materials

- Demolished surface: 55,000 sqm
- Recycling rate: 70%
- Quantity of concrete used: 11,000 m³
- Quantity of timber used: 4 m³

Carbon

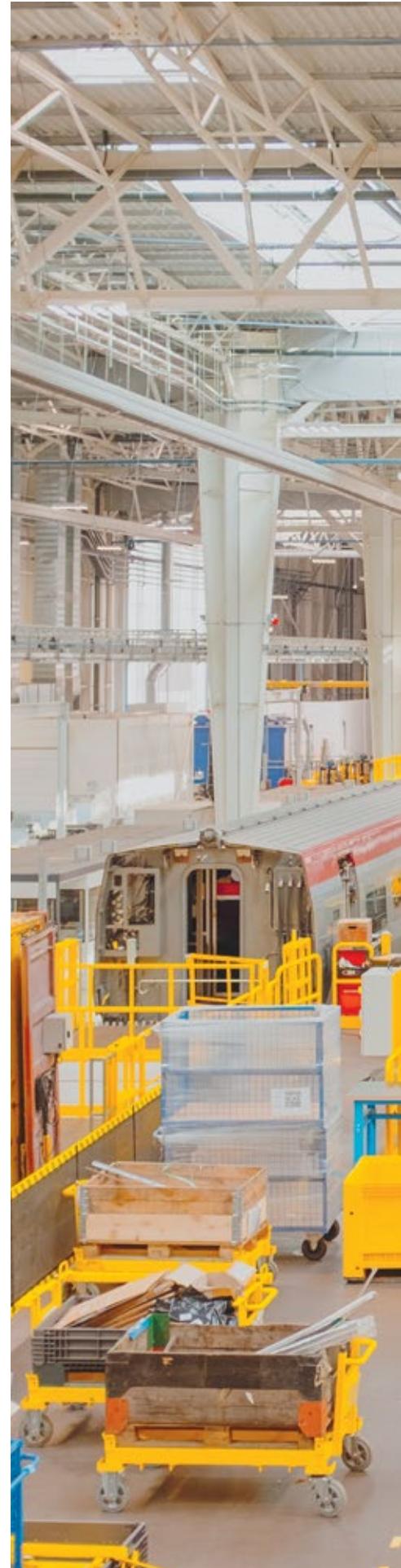
- E+C- performance level: C1
- GHG emissions throughout the life cycle of the building: 37,135 tCO₂ eq over 50 years
- GHG emissions of construction materials and equipment used: 24,590 tCO₂ eq over 50 years
- GHG emissions throughout the life cycle of the building: 1,345 kgCO₂ eq/sqm over 50 years
- GHG emissions of construction materials and equipment used: 890 kgCO₂ eq/sqm over 50 years

Climate

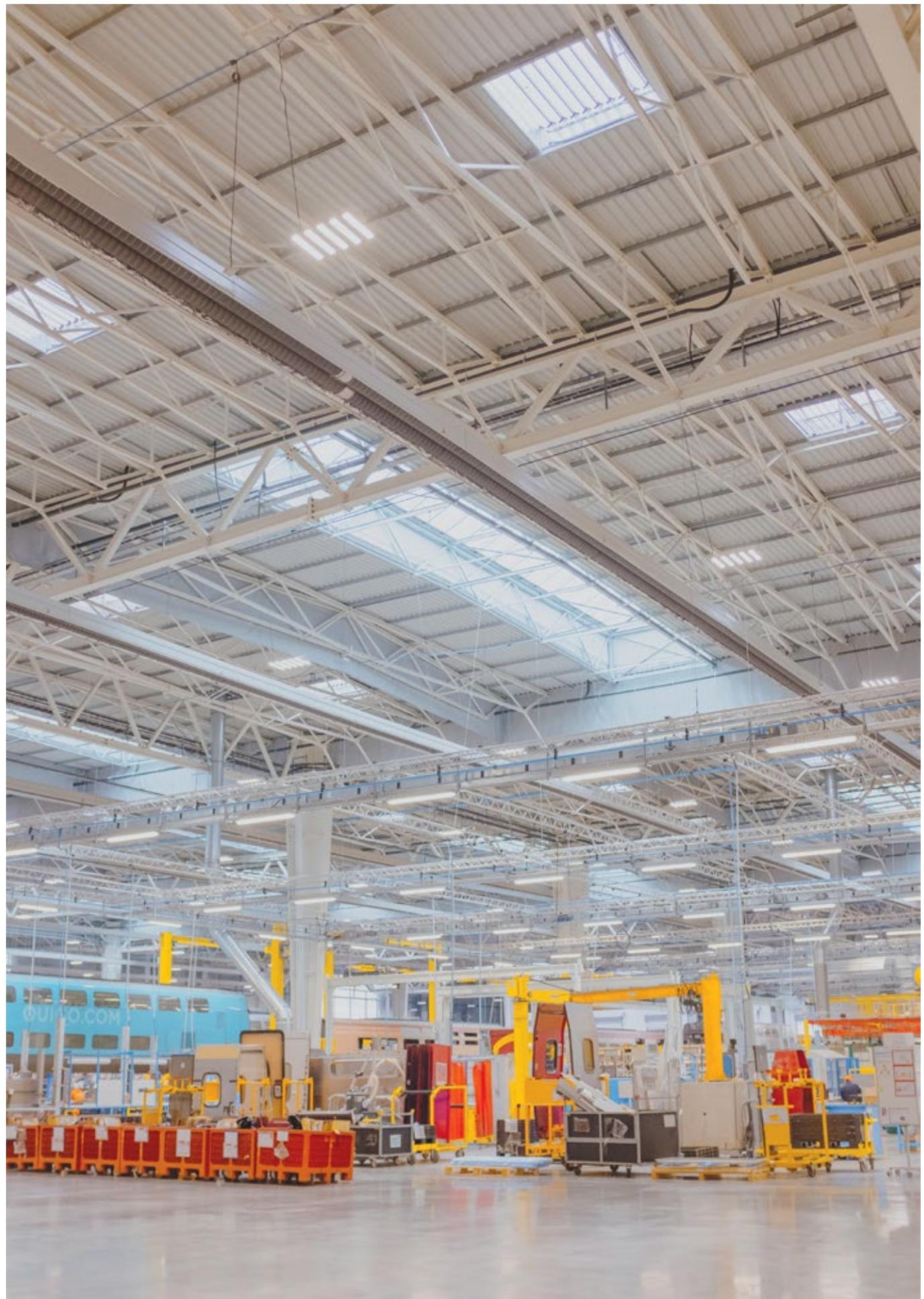
- Rainwater collection tank capacity: 240 m³
- Run-off coefficient: 85

Biodiversity

- Created green spaces: 3,300 sqm
- Number of trees: 161









Creil urbain footbridge

France

Client

Creil Sud Oise urban area

Project management

AREP Group / EGIS (Representative)

AREP Group's mission

Design of the footbridge

Floor area

Width: 5.30 metres / Length: 220 metres

Delivery

2029

Environmental metrics and solutions – EMC2B

Energy

- 110 MWh / year
- Energy-positive structure. Solar panels generate electricity, with 33 MWh / year required for regular operations: lighting and vertical circulation

Materials

- 30% recycled steel and use of standardised steel components
- Bamboo decking
- Locally sourced stone

Carbon

- 800 kgCO₂ / sqm
- Reduced carbon footprint of the superstructure compared to the average for footbridges (1,500 kgCO₂ / sqm)

Climate

- Average albedo: 0.34
- 70% of surfaces protected by glazed wind screens to ensure optimal user comfort
- Natural ventilation throughout the footbridge

Biodiversity

- 100% of existing trees preserved
- 54 new trees planted
- 33% increase in surface permeability





Luxembourg in Transition

Luxembourg cross-border region

Distinction

Project selected for the 10th International Architecture Biennale Rotterdam (2022)

Client

Ministry of Energy and Spatial Planning of the Grand Duchy of Luxembourg

Project management

AREP Group (representative) / Taktyk / Quattrolibri / Institute for Environmental Transition of Sorbonne University Alliance / Mobil'Homme

AREP Group's mission

Foresight study on Luxembourg and its cross-border functional region

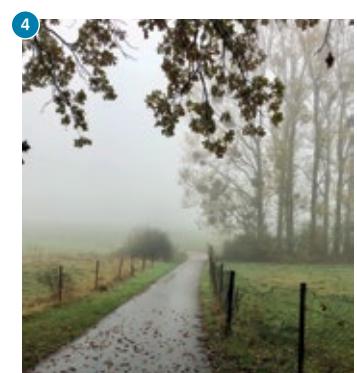
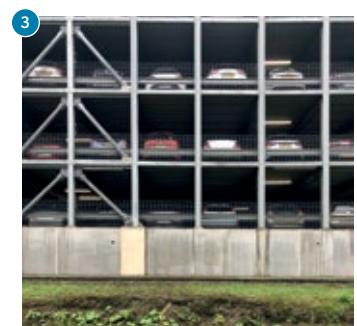
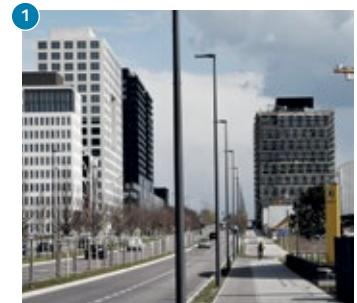
Floor area

Study perimeter: 10,000 km² (Luxembourg Functional Region)

Delivery

Competition won in 2020
Study delivered in 2022





Children Streets Paris

Client

City of Paris

Project management

AREP Group

Partners

Bfluid (co-contractor) / Playgones (subcontractor)

AREP Group's mission

Design and implementation of the "Children Streets" initiative, aimed at creating a new typology of urban space

Cost

€79,070 (excl. VAT)

Delivery

2025

Environmental metrics and solutions – EMC2B

Materials

- Porous paving materials
- Use of reclaimed paving stones

Carbon

- Priority to active modes of transportation

Climate

- Encourage the development of urban cooling islands

Biodiversity

- Soil unsealing and greening





Oasis schoolyards Paris

Client

SLA City of Paris

Project management

AREP Group

AREP Group's mission

Design and implementation of green "Oasis schoolyards"

Cost

Design studies: €50,000 (excl. VAT)
Construction works: €500,000 (excl. VAT)

Delivery

2022

Environmental metrics and solutions – EMC2B

Energy

- Transition towards capable, reversible and traffic-calmed public spaces

Materials

Promote porous surface materials to help soils act like sponge:

- Reclaimed natural stone paving
- Soft cork floor
- Low-tech and sustainable modules made from bio-based materials
- Use of wood chips for playground surfacing
- Wooden playground equipment

Carbon

- Priority to active games and modes

Climate

Encourage the emergence of urban cooling islands by:

- Unsealing the soils
- Preserving a shaded canopy
- Using light-coloured surfaces with high albedo
- Harvesting rainwater from the roofs

Biodiversity

Soil unsealing and greening:

- 310 sqm + 172 sqm of pervious and / or planted surfaces
- Nests and shelters for small fauna





Banks of Hoan Kiem lake Hanoi, Vietnam

Client

Public Works Management Unit of the Hoan Kiem district

Primary contractor

Vietnam Infrastructure JSC

Project management

AREP Group

AREP Group's mission

Renovation and beautification of public spaces around Hoan Kiem Lake

Cost

€152,628 (excl. VAT)

Floor area

15 ha

Delivery

2020





Greater Annecy, the archipelago conurbation France

Client

Committee for Architecture, Urbanism and Environment (CAUE) of Haute-Savoie / Greater Annecy conurbation

Project management

AREP Group

Partners

Taktyk (landscape architecture, planning) / Repérage Urbain (sociology) / Kaleido'Scop / Benjamin Pradel (Ph.D in sociology) / Martin Étienne (illustrator)

AREP Group's mission

Foresight study for the environmental transition of the region

Cost

€100,000 (excl. VAT)

Floor area

540 sqm

Duration of the mission

2021 – 2023

Environmental metrics and solutions – EMC2B

Energy

Final energy consumption (MWh / pers / year): 27.2 MWh / pers / year

- Scenario 1 > 15.4 MWh / pers / year
- Scenario 2 > 11.8 MWh / pers / year
- Scenario 3 > 11.5 MWh / pers / year Share of renewable energies in gross final energy consumption: 15%
- Scenario 1 > 88% • Scenario 2 > 87% • Scenario 3 > 93%

Carbon

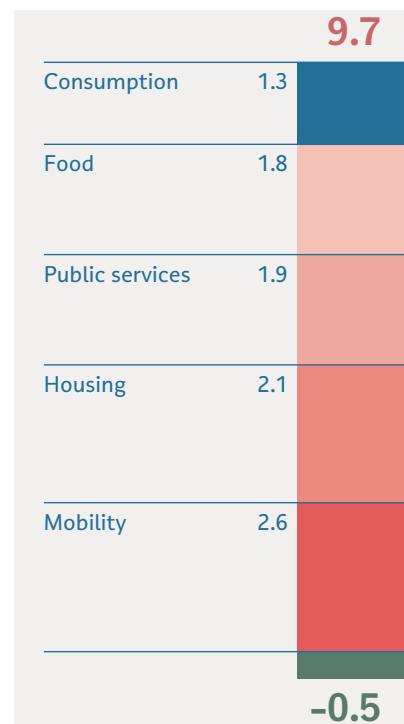
Carbon footprint (tCO₂ / pers / year): 9.7 tCO₂ e / pers / year

- Scenario 1 > 4.2 tCO₂ e / pers / year • Scenario 2 > 2.4 tCO₂ e / pers / year
- Scenario 3 > 2.7 tCO₂ e / pers / year

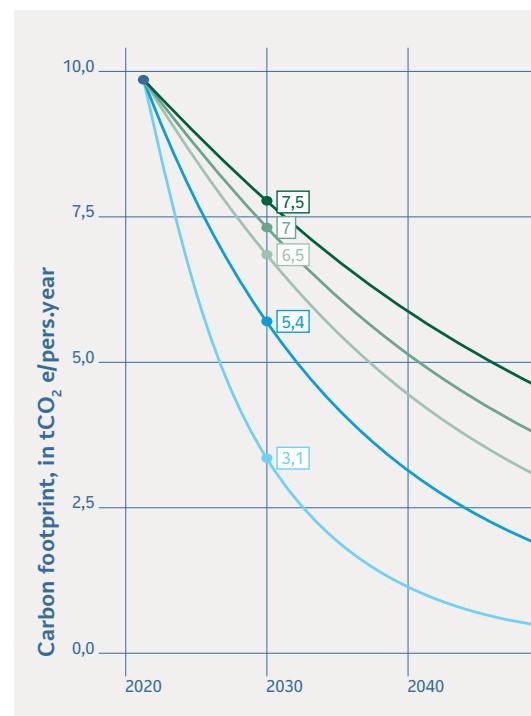
Biodiversity

- Farmland: 184,000 sqm
- Woodlands and semi-natural areas: 248 ksqm
- Average rate of soil sealing in the Greater Annecy conurbation between 2008 and 2021 (ha / year): 43.7 ha / year
- Scenario 1 > 15.4 ha / year • Scenario 2 > 10.2 ha / year
- Scenario 3 > 5.5 ha / year

Current situation

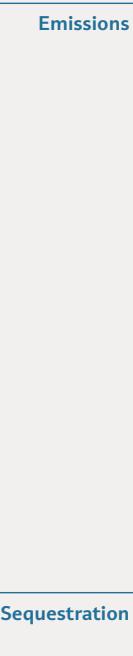


Carbon footprint of the Grand Annecy in tCO₂e/pers.



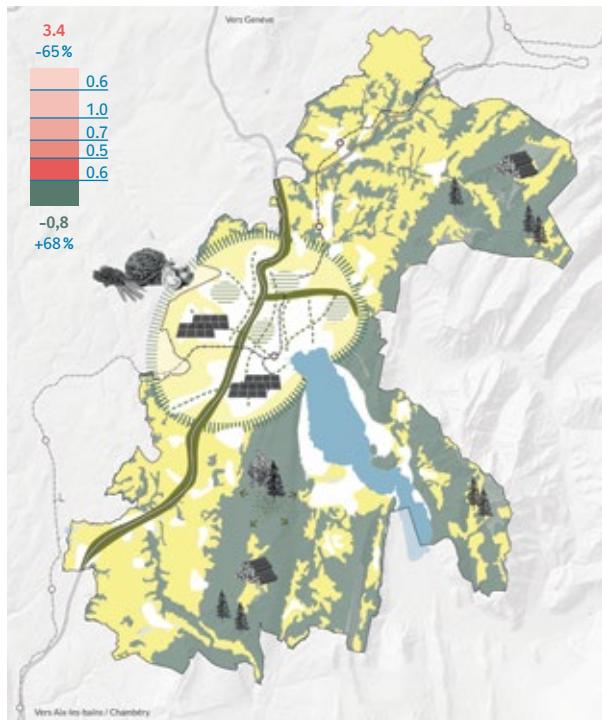
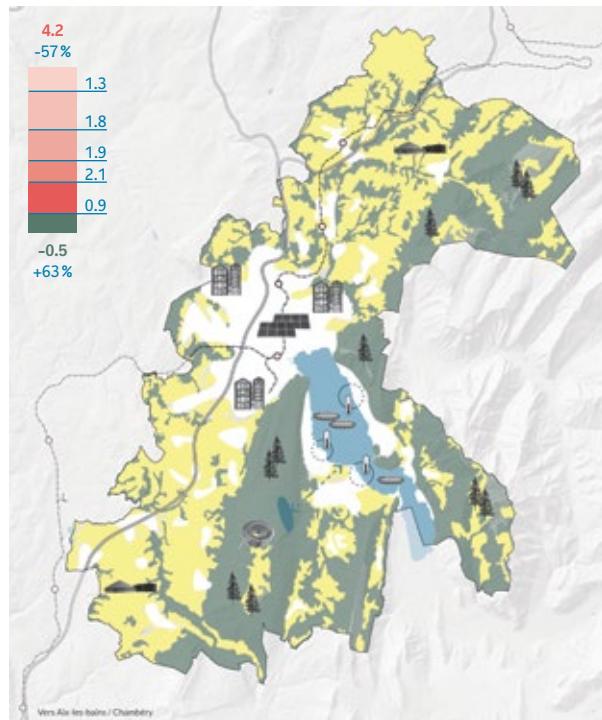
Carbon footprint trajectories at constant effort rates, based on the 2020 footprints in the scenarios.

● +1.5°C
● Negotiated archipelago
● Archipelago of the common



The diffuse archipelago - 2050

The negotiated archipelago - 2050

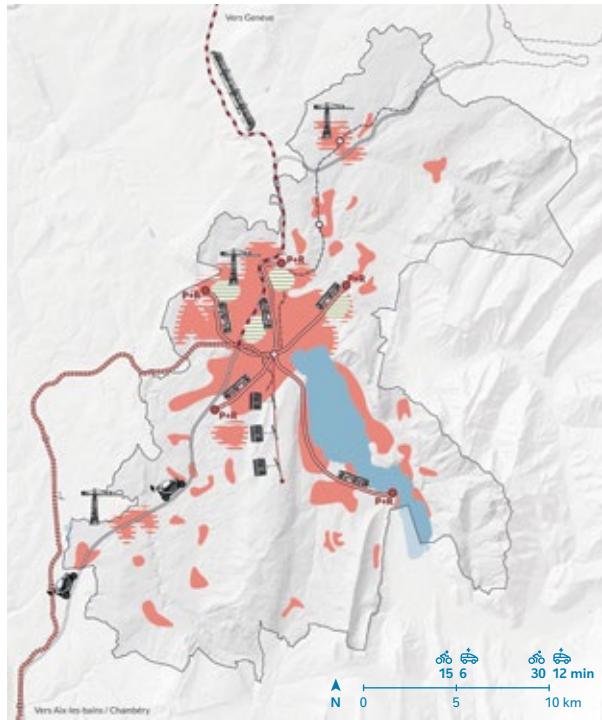
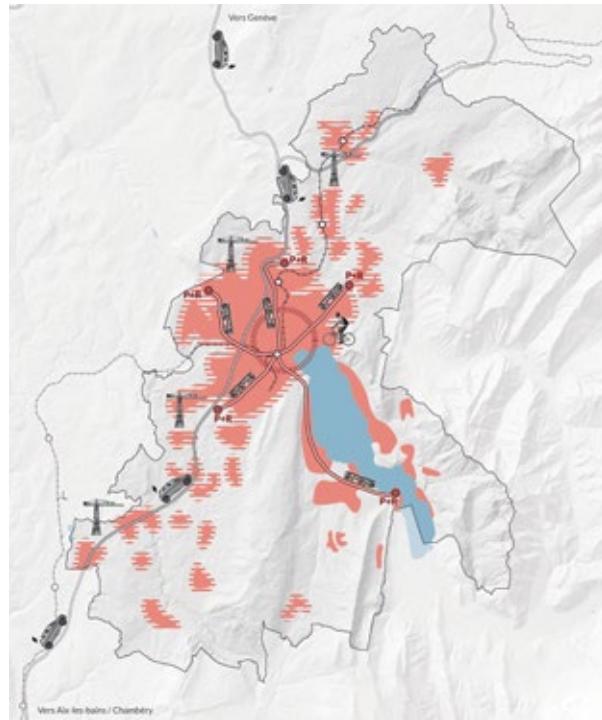


Agriculture & forestry

- Vertical urban farms.
- Fish farming.
- Combating bark beetle infestation.

Agriculture & forestry

- Developing the market gardening belt in peri-urban areas to strengthen Greater Annecy's food self-sufficiency.
- Reinforcement of green corridors in the town centre.
- Reinforcing green corridors along infrastructures.
- Renaturalisation of soils in artificial areas (ZAN).
- Setting up of agriculture & forestry demonstrators.
- Combating bark beetle infestation.



New TGV INOUI *France*

Client

SNCF Voyageurs

Project management

AREP Group / Nendo

AREP Group's mission

Furniture design

Train layout

Technical development

Industrialisation monitoring

Delivery

2024





Index



01

[P. 16]

Jihlava train station Czech Republic

Jihlava HSR hub: a minimalist, post-carbon gateway through the forest.

Between Prague and Brno, the Czech rail network operator, Sprava zeleznic, is developing the European lines of the future Berlin-Vienna and Munich-Warsaw HSR lines. As part of this new infrastructure, the Jihlava terminal, located on the outskirts of the city at the heart of a complex infrastructure network and a rich natural landscape, will serve as a hub between the high-speed line, public transport in the Vysocina region and car transport.

A light ribbon that glistens in the sunlight and slips between the trees at the edge of the forest, the Jihlava HSR hub will serve all forms of mobility – gradually phasing out the use of fossil fuels. The project itself is conceived to be reversible and an opportunity to preserve the surrounding nature.

The terminal is minimalist, designed to minimise its environmental footprint while offering the best possible conditions for users. Its architecture, both frugal and expressive, adapts to the topography of the site and builds on the existing infrastructure: the forecourt and station concourse, open on all four sides, are designed between the high level of the HSR viaduct and the low level of the conventional line.

The design of this post-carbon station is based on passive architecture principles and incorporates bioclimatic methods (greenhouse effect in winter, natural lighting, through-ventilation, protective devices, etc.), a photovoltaic roof, the use of bio and geosourced materials and the reuse of excavated earth.

While the infrastructure is complex, we designed an effective passenger wayfinding, surrounded by nature. A canopy forming a large ribbon of wooden structure, covered in zinc, runs through the landscape. The architectural staging of this poetic concourse will intuitively guide passengers from a forested forecourt to the platforms, passing through the station's interchange hall, under the railway viaduct.



02

[P. 18]

Budapest Nyugati station Hungary

The in-depth restructuring of Nyugati station has required taking into account the environmental aspects that make up AREP's EMC2B approach and questioning the act of building.

AREP's finalist project for the restructuring of the Nyugati station in Budapest, Hungary, takes into consideration the living world, the architectural heritage and the existing infrastructure to support the shift towards a traffic-calmed urban metabolism. The station acts as an "ecological locomotive" and has been designed as a resource-efficient and resilient mobility hub open to the city.

Surrounded by an urban forest, this post-carbon station, frugal in terms of materials and built-up areas, has been designed to be one of the first large energy-positive stations in Europe. Our project preserves the existing building, with the restoration of the railway hall built by the Eiffel Ateliers in 1877, and allows for evolving uses (commercial, artistic, sports and cultural activities).



03

[P. 20]

Lausanne train station Suisse

The Swiss Federal Railways are working with AREP to expand Lausanne train station's capacity and improve passenger comfort.

By 2030, more than 200,000 people will pass through Lausanne station every day. As part of the Léman 2030 programme, Swiss Federal Railways (CFF-SBB-FFS) has commissioned AREP to lead the consortium of architects responsible for the project management of Lausanne railway station, in association with

the architectural firm Merlini Rivier.

The project consists of an ambitious plan to double the capacity of Lausanne's historic station. It is a major undertaking for the Swiss rail network and, more specifically, for the Lake Geneva region.

It requires the redesign of all the platforms to improve their capacity, the structural renovation of the large railway hall, the resizing of the underground spaces through the creation of new underground passages and a gallery under the station square to accommodate the two metro lines, and the complete restructuring of the passenger building. Equipped with modern services and shops, the new Lausanne station will be safe, comfortable and accessible, offering a comprehensive and attractive range of facilities.

One of the major challenges of the project is the need to maintain a high level of service for passengers and local residents throughout the various phases of the works. AREP is therefore drawing on its extensive expertise to ensure that the station remains fully functional at all times.



04

[P.22]

Torino Porta-Susa train station Italy

AREP transformed Torino Porta-Susa into a glazed, energy-producing arcade that blends station and city into one.

Both an intermodal terminal and an urban locus, Torino Porta Susa station is a highly innovative project in the world of rail transport. It integrates all the requirements of an interchange hub in a new and resolutely contemporary city space: the city enters the station and the station becomes a piece of the city. Drawing on the tradition of 19th century arcades of the Italian cities, the station has the form of a 385-metre-long and 30-metre-wide glazed gallery, which is joined perpendicularly at 100-metre intervals by walkways positioned in line with existing streets. Inside the gallery is a series of volumes in steel and glass, house services and shops. They rest on a two-level concrete base occupied by car parks and technical areas. From the interior, one can appreciate the geometry of the glass canopy, whose form follows the variations in ground level between north and south and the two main thoroughfares to the west and the east. The north-facing side of the station ends in a gently sloping forecourt overlooking the historic town and the old station. A system of multiple vertical walkways (gently sloping ramps, escalators, staircases and lifts) ensures simple, easy connections between the station's five levels and smoothes out the uneven ground between south and north, and between Corso Bolzano and the Spina. The glass roof (15,000 square metres) is entirely covered in single-crystal photovoltaic sensors fitted between the two layers of glass. They also act as shading devices, optimising the thermal comfort of this public space in summer and winter alike, while producing 680,000 kWh per year. The entire building is ventilated naturally – from the platforms, which have high inertia, to the concourse, which opens onto the exterior. This system is complemented by occasional boosts of heat (winter) or cold (summer).



05

[P.26]

Linz Tram-Train stations Austria

With AREP's design expertise, Linz's new stations are becoming durable, user-focused landmarks at the heart of the city's network.

AREP collaborated with Austrian architecture firm DTFLR to imagine new tram/train stations in Linz, Austria, a project distinguished by a comprehensive design approach combining architecture, user experience optimisation, service design, product design and wayfinding. This ambition was applied to two stations – an underground intermodal hub (Urfahr-Ost) and a smaller elevated station (Hafenstraße) – with the aim of providing coherent, intuitive and pleasant mobility hubs with a strong identity.

In this project, service design reflects a detailed understanding of passenger flows. At Urfahr-Ost, the two-level layout, large light-filled spaces and unobstructed views ensure natural and fluid orientation. An in-depth study of passenger flows has identified key points of passage, where directional signage has been strategically placed to guide users without visual overload. This approach is also applied at Hafenstraße, where simple circulation and clear spaces enhance the user experience. Furniture and all the equipment are integrated into a formal and material consistency that echoes the rest of the project. Wood, concrete and powder-coated metal: the materials have been chosen for their durability and their ability to interact with the architecture. The scale of the objects thus actively contributes to the identity of the stations, like a common thread running through the network.

Wayfinding is also a fundamental pillar of the project. Designed as a natural extension of the architecture, it follows the lines of the building. The signages and totems seem to emerge from the ground or blend into the surfaces, with inscriptions integrated into the concrete or applied to metal plates in coordinated colours. Integrated lighting elements ensure optimal legibility in all weather conditions. The curved typography echoes the flowing lines of the roofs and supports, reinforcing visual continuity.

This constant dialogue between architecture and design creates a fluid and intuitive experience for travelers. The result is a strong identity for these stations, which become much more than simple places of transit: they are genuine public spaces that are easy to navigate, welcoming and rooted in their urban environment.



06

P. 28

Brussels underground northern extension Belgium

A study has been launched by the public consortium Beliris and Stib for the extension of the public transport network to the north of Brussels.

This extension, which will link the North station to Bordet station over a distance of around four kilometres will be running through the municipalities of Schaerbeek and Evere. To meet future needs, the metro will be automatic and be operating services every 90 seconds. The new line comprises seven stations located some 30 m below ground and emerging in very diverse and constrained urban contexts, thereby requiring solutions tailored to each location. AREP, which is part of the BMN (Brussels Metro North) multidisciplinary consortium specially set up for this project, is working on the Verboeckhoven (7,000 sqm), Tilleul (4,000 sqm) and Bordet (7,281 sqm) stations from the project creation to the practical completion in coordination with the Belgian practice Van Campenhout.



07

P. 30

Nîmes Pont-du-Gard train station France

Thermal comfort, water management, use of local materials, biodiversity preservation, solar car ports. The Nîmes-Pont-du-Gard train station brings together all of our commitments.

The building appears behind the trees in a Mediterranean garden. Around the station, native plant species lead the way to the entrance of the station. Inside the building, a large canopy takes over from the trees to protect the travelers. The building is composed of three layers of thermal protection and light filters. On top, inclined sunshades protect from excessive light. On the underside, a bamboo cane ceiling provides subdued lighting that evokes the shady atmosphere of the South.

The transparent glass skin enhances the legibility of the station's organisation: vertical circulations, services and facilities, connections between the different modes of transport, including bicycles and electric cars, and between the existing regional train line and the new high-speed line. Soft light, generous spaces, bio-sourced and earth-sourced materials, such as the local stone of Brouzet, natural ventilation and light-weight structures such as the connecting walkway built like a suspension bridge. Most of the car parking spaces provide a solar canopy with 8,000 sqm of solar panels.

The linking platform overlooks the landscape and offers both a view of the Nîmes hillsides to the north and an unimpeded view of the Costières. The arrival at the station allows to quickly

grasp the particularities of the site.

The combination of all these elements makes passengers movements easier and more fluid and provides a enhanced passenger experience.



08

P. 34

Saint-Jean-de-Maurienne train station France

The station has been designed in anticipation of the future high-speed train station on the Lyon-Turin line and can be disassembled and reused to minimise its carbon footprint.

Designed to adapt to the peak season and a fixed time frame (10 years), the project is the result of a broad reflection on the adaptability of buildings over time and the construction choices in relation to their lifespan, in keeping with our research revolving around the theme of "temporary" constructions. The prefabricated construction system contributes to maintaining a clean building site, reducing waste on site, while limiting heavy machinery. The light-weight construction of this "gallery-like" station features raw materials and is aimed at reducing energy consumption through a conception process that has focused on building volumes, compactness and sun shading as well as on the size and orientation of the bay windows. The building features a pleated, double-pitched roof supported by a grey strip, that takes its cue from the traditional villages of the Alps while echoing the slopes of the Vanoise mountain range. The roof is the element that gives the building its characteristic form. The canopy, which extends on both sides of the main building, makes it look like an elegant "gallery-like station", enhancing its dialogue with its environment. The facade cladding consists of vertical timber boards, sourced from French suppliers. The north-facing openings provide generous natural light while limiting overheating. The entirely glazed south-facing façade allows for natural light and sun to flood into the passenger and visitor areas.



09

P. 38

Saint-Michel Notre-Dame train station Paris

AREP has been awarded the National Engineering Grand Prix for the redevelopment and modernisation project of Saint-Michel Notre-Dame train station.

Our multidisciplinary practice put forward frugal and sustainable solutions for this Parisian station located along the Seine. It is the eighth busiest station in France (32 million passengers)

and is served by the RER (suburban) lines B and C and the metro line 4, providing an interconnection area for them.

Many constraints had to be overcome to turn this underground station and its invisible passenger building into a brighter, more accessible, more fluid and more noteworthy terminal. How could the building be bathed in natural light when openings to the outside could expose it to flooding from the Seine or cause noise pollution? And how, without these openings, can the quality of the indoor air be improved?



10

P. 40

Saint-Lazare train station Paris

AREP refurbished Paris Saint-Lazare, restoring its historic character while creating a seamless, modern passenger experience.

Opened in 1837, Paris Saint-Lazare is the oldest train station in France. The needs of pedestrians have been at the heart of the project: organise space between the different modes of transport to facilitate movement, make the station more comfortable, welcome travellers in a quality urban atmosphere, offer them efficient services and attractive shops. The link between the station and the surrounding neighbourhoods and the city has been reinstated while the architectural heritage features of the station have preserved and restored.

The project required particularly strong attention to the management of pedestrian flows both throughout the construction phase to keep the station running and afterwards in its day-to-day operation. The original architectural features of the building have been highlighted and the three main levels of the station (metro, street, trains) have been linked via an atrium which brings natural light all the way down to the metro area below street level. Lighting, materials (stone, timber, glass, metal), signage and furniture have been thoughtfully combined to ensure that all areas of the station are welcoming, functional and comfortable both for travellers and people simply passing through. The floor from the end of the platforms to the metro and RER entrances features a hard-wearing, light-coloured granite which adds to the cohesion and brightness of the spaces. The memory of the place, designed by architects Alfred Armand in 1853 and Juste Lisch in 1889, is kept alive by using the same materials as the original building: glass, for transparency and protection; steel, as a historical expression of lightweight structures and a contemporary expression of modernity; and stone on the restored façades, expressing continuity with the city's 19th and 20th-century buildings. The restructuring of the main concourse, listed as a historic monument, made possible the creation of a 10,000 sqm retail space on three levels.



11

P. 44

Rennes train station France

A gateway to Brittany, Rennes station epitomises the architectural transformation that seals the connection between the two riverbanks of the city and facilitates transport links.

AREP has redesigned the station to improve the management of pedestrian flows associated with the arrival of the Bretagne-Pays de la Loire line (30 million passengers expected by 2040).

This transformation of a 19th century "bridge-station" has been a real technical and architectural achievement and part of a broader urban reflection.

The cloud floating over the built landscape acts both as a roof to the extension of the station and a façade while providing a sense of place identity. It consists of four seven-metre-wide sheets of ETFE cushions, a light-weight material used as an alternative to glass. The sheets are transparent and partially overlap each other, thereby letting natural and artificial light flood in. They are supported by a tree-like structure made up of metal posts and timber chords.

Each of these posts is rooted at level -1 of the station and stretches up to 17 metres to reach the roof. Under the cloud an origami-like complex structure with 320 facets tops the interchange area. On the outside, a new footbridge spanning the rail tracks, the Anita Conti footbridge with its landscaped ha-ha, extends the interchange area and gradually rises to 11 metres before reaching down to the South forecourt.



12

P. 48

Paris-Nord train station Paris

For the renovation of the Paris Nord station, AREP has imagined a new form of architecture which redefines the archetypal train shed.

With the Horizon 2024 project, AREP has imagined and designed a more legible and uncluttered station, one that is open to the city and meets real needs with simplicity. The new station's contemporary and environmentally engaged architecture reflects the layout of the grand train sheds and encourages different types of mobility. The rehabilitation by AREP's multidisciplinary project teams invented a new archetype of trains sheds: one that is simple and frugal, produces solar-powered energy and dialogues with the contemporary glass roof while being in keeping with the vocabulary of the historic grand trains sheds. Opening up onto a new forecourt and bathed in natural light, it accommodates more than 1,000 secure bicycle spaces.

Its timber-latticed façade allows to see through it while at its upper, partly coloured, part one can see the climatic chronology of Paris from 1850 to 2024, an allusion to the climate stripes.

The new forecourt has been rethought to act as a new urban focal point and an eco-friendly passenger area, with green spaces and a light-coloured, high-albedo floor using reclaimed materials. In the extension of this new intermodal space, the transport operators' premises have been integrated into the timber façade that runs along the entire forecourt. An urban logistics hub dedicated to last kilometre deliveries, complements the scheme to give back to the station its function of public space in the heart of the city.



13

[P. 52]

Paris-Lyon train station Paris

Frescoes Gallery (Salle des Fresques)

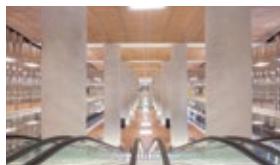
The restoration of the Frescoes Gallery, an outstanding heritage site listed as a historic monument, has been broken down into several phases overlapping one another in order to meet operational constraints and the need to keep this large Parisian station running: restoration of the frescoes, restoration of the glass roofs, installation of water mist fire protection devices, egg chairs in the Frequent Travellers lounge, Fresco 3 works. The aim of the project was to improve the functional and spatial legibility of the public space and create a new retail offer and new services.

Small passenger hall

Built in 1898, the small passenger hall occupies an intermediate position between the transversal platform and the station's iconic restaurant "Le Train Bleu" station — a jewel of the building inaugurated in 1901 and renovated in 2014. The renovation work included refurbishment of the glass canopy, steel structure and interior facades of the building, as well as restoring the metal frames, rainwater collection systems and joinery to their historic appearance.

Cour Chalon

The Chalon project, undertaken after the restoration of the clock tower in 2015, constitutes the first large-scale restoration of the station's façades. The aim was to ensure the longevity of the facades and roofs of the historic monument and to enhance the station's heritage features by creating retail units under the frescoes.



14

[P. 54]

La Défense Grande Arche station France

AREP has supported SNCF with the Western extension of the RER E line by designing the future La Défense station beneath the CNIT. The project involved integrating a major new station into one of Europe's most complex multimodal hubs, connecting with metro line 1, RER A, SNCF services, the coach station and tram line T2.

From the earliest feasibility studies, AREP developed and compared several functional scenarios to optimise circulation, ensure clear connections, and integrate the station within a highly constrained underground environment. Particular attention was paid to avoiding existing structures, including the CNIT foundations, nearby high-rise buildings, car parks and retail areas, while ensuring the station remains fully accessible and efficient.

Located more than 36 metres below ground, beneath the A14 motorway, the metro and RER A, the station includes one of France's longest escalators, bridging a 25-metre height difference. AREP carried out the initial sizing of circulation areas (platforms, halls, access routes and exits), passenger flow analyses, and the preliminary design for architectural, technical and non-structural components, enabling the civil engineering teams to calibrate the works.



15

[P. 56]

Paris Porte Maillot- Palais des Congrès station France

As part of the extension of RER line E to the West, AREP designed the functional layout and interfaces of the future Porte Maillot station, positioned at the heart of a dense urban fabric and a major multimodal interchange. The station provides seamless connections between the extended RER E, RER C and metro line 1.

The project required meticulous integration under and around the Palais des Congrès, taking into account its foundations, surrounding underground structures (car parks, service areas) and the extensive urban redevelopment planned for Place Maillot. The design also aims to bring natural light deep into the station despite the narrow underground volume, incorporating vertical circulation routes within the structural elements of the platforms.

Through an iterative design process, AREP developed solutions to enhance passenger flows, create new station exits and

ensure clear, intuitive links with other transport modes. The team defined the initial sizing of all passenger areas and produced functional studies and flow assessments, as well as preliminary estimates for architectural, technical and equipment-related works.



16

[P. 58]

Avignon high-speed train station France

The Avignon TGV station protects users from climate hazards while maintaining a visual connection with the surroundings.

Built in 2001 on the Courtine peninsula, less than three kilometres from Avignon, this high-speed station is the centrepiece of a new business hub that stretches over 200 hectares at the area where the Rhône and Durance rivers meet. The site is subject to very strong climatic constraints, as the Mistral wind blows from the north and the sun shines through from the south. AREP designed two 400-metre-long structures along the open-air platforms to protect passengers. The two buildings are set on the rail track embankment. The geometry reflects the heat of the South. The outer curve features stone, while the interior is made of white stained wood. On the opposite side, the transparent façade protects from the wind and allows views of the sky and the city. The mezzanine level accommodates the waiting area and has been designed as a pre-positioning system: passengers can stand or sit along the platform, in front of their carriage, while being sheltered. The station, designed as a "garden station", features various species, such as plane trees, cypresses, tulip trees, almond trees, and umbrella pines to restore local biodiversity and set the stage for the renewal of the city.

The project strengthens intermodal connections between various decarbonised transport modes: the metro, bus station, future tramway on Boulevard National, buses on Boulevard Voltaire, and extensive facilities for bicycles. For its design, AREP is working closely with Atelier Roberta, a renowned landscape agency. From the initial sketches, this collaboration has ensured built spaces harmonise with open areas. The layout of the Halles delineates public spaces and gardens integrated at every level: a wind garden with a windbreak hedge on the rail platform, a landscaped ramp connecting Boulevard National to the historic station, and a garden square on Boulevard Voltaire with rain gardens for stormwater management.

The Halles Saint-Charles incorporate environmentally friendly solutions: photovoltaic energy production on rooftops, natural ventilation to reduce energy demand, climate adaptation, low-carbon and reused materials, the creation of cooling zones, and maximisation of planted, permeable surfaces.

User navigation is also a priority, with thoughtful wayfinding features to enhance the experience. Colourful sun breakers under the Halles' roofs provide, depending on the perspective, a palette evoking Marseille's rooftops or vivid tones for easy orientation within the station.

Finally, the design adapts to the Mediterranean climate. Users can choose their route based on weather and season: under the Halles' vast canopies, indoors for full shelter, or in outdoor spaces, protected as needed from the sun, rain, or mistral winds.



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[P. 64]

Paris Austerlitz train station France

The project aims to open up the station to the city, overhaul intermodal transport, provide passengers with high-quality public spaces and improve the range of services and shops on offer.

Boasting a 280-metre long and 52-metre wide double-sloped roof, the large passenger concourse of the Paris-Austerlitz station, listed as a historic monument, stands as an incredible architectural and technical feat. Its restoration required the simultaneous efforts of up to 150 craftsmen representing 40 different professions. To renovate this large passenger hall from 1867, a 3,000-tonne and 12,000 sqm scaffolding (the largest in Europe) had to be erected within a fully operating station, where 65,000 passengers commute daily. Today, thanks to the renovation of the 15,000 sqm glass roof, the stone has been restored to its original colour and the station to its original brightness. The Polonceau structure in wrought iron has been reinforced without altering the fineness of the structure or its lightness.

All areas of the station will be modernised to improve its role functioning as a major multimodal hub. Connections between the surface station (national and regional lines, RATP metro line 5 and the underground station (RER C and RATP metro line 10) will be simplified and improved in terms of comfort and speed.

Passenger capacity and quality of service will be improved in the medium and long term, thanks to the resizing of public spaces and the development of an attractive commercial



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[P. 62]

Marseille Saint-Charles train station France

AREP leads the design of the Halles Saint-Charles, delivering a high-capacity, climate-adapted transport hub that reconnects Marseille's districts and enhances intermodal links.

The Halles Saint-Charles represent the visible part of the Marseille Saint-Charles underground station project, part of the New Provence Côte d'Azur Line initiative. This project aims to enhance the station's rail capacity while driving urban transformation. A panoramic promenade creates a 360° connection between the station and surrounding neighbourhoods, while a new underground gallery will link the northern and southern districts currently divided by railway tracks.

programme and SNCF services (waiting areas, retail space). This operation is part of the ZAC-Paris Rive Gauche development and will enable the urban redevelopment of former railway land covering nearly 12.8 hectares.



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P.68

Nice Airport train station France

A resilient railway station in the face of climate change.

With a forecourt transformed into an urban square and a 4,200 sqm green space, Nice Airport's future garden station is designed to be the first bioclimatic station. Located near the brand new Nice Saint-Augustin bus station, it will be at the heart of a multimodal transport hub offering all connections. Studies for the future Nice Airport station have been carried out with a view to climate change resilience (risk of flooding/heavy rain, adaptation to wind and heat islands/drought). The station's architecture has been designed to adapt to these three risks: elevated station, aerodynamic roof shape, large garden and natural cooling island.

The future station and its multimodal transport hub will be nestled under a 6,000 sqm bioclimatic canopy equipped with photovoltaic panels, linking the two sides of the neighbourhood and unifying the rail and road stations. Its design is based on an innovative approach that integrates all the major environmental challenges facing the French Riviera by the end of the century. It will regulate the temperature and light in the station to make it more comfortable for users.

Designed as an ecosystem at the heart of the city, the station will have 600 sqm of comfortable waiting areas opening onto its garden and around 1,500 sqm of services and shops for travellers and local residents. This project, which is characteristic of the necessary adaptation of our railway infrastructure, will be completed in 2028.

Through its materials and lighting the station carries on the heritage of Moroccan classic (geometric space, use of light, simple and noble materials, use of traditional technical skills) while paying tribute to the modernity of Casablanca.

The concourse features a large timber and steel roof obeying a rigorous geometry and supported by thin columns which end up in eight branches framing an opening in the roof that allows for a more subdued ambient light. The floor-to-ceiling glass facades ensure continuity between indoor and outdoor public spaces while allowing passengers to grasp the general layout of the station and, thereby, anticipate their movements. On the west-facing façade of the building, a mashrabiyya acts like a screen rises to help reduce direct sunlight in the afternoon. On the south-facing façade, the roof covers the vast outdoor public spaces.

The underground car park extends under the forecourt and the passenger building, allowing direct vertical links between the car park and train access points. It has only two levels to facilitate its operation and management in terms of safety and it can be accessed by ramps surrounding the taxi drop-off and pick-up areas.



21

P.96

Hanoi HSR train station Vietnam

Harmonious integration of a station into its environment.

In Vietnam, in collaboration with our partners, we recently completed a pre-feasibility study for the future Hanoi terminal HSR station, Ngoc Hoi, which is destined to become a key hub in Vietnam's high-speed rail network.

The primary aim of this study was to present a viable and forward-thinking conceptual design:

- Ensure a comprehensive integration with national and urban rail networks and create synergies between different modes of rail transport and other forms of transportation to facilitate efficient passenger movements.
- Provide an analysis of infrastructure requirements, considering current and projected demand, technological advancements, and international best practices in railway station design and operation.
- Explore the feasibility of alternative options to optimise the use of land and ensure the station's capacity to handle high passenger footfall and meet its operational objectives.
- Align with regional and sector masterplans with recommendations that can be incorporated into the ongoing update of the Regional Railway Masterplan.
- Engage stakeholders to build consensus around the concept design, address concerns, and harness collective expertise in realizing the vision for Ngoc Hoi Station.
- Promote sustainable and innovative design solutions that include principles of transit-oriented development, sustainability, innovation, and resilience to reflect best practice in green infrastructure, energy efficiency, and climate adaptation.
- Emphasize the optimal sizing of each railway function to maximize the available land surrounding the station hub. We believe that modern railway infrastructure must prioritise seamless integration with the urban and natural landscape, emphasizing the creation of high-quality environments that are resilient to climate change at both local and national



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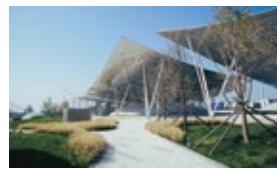
P.92

Casa Port train station Morocco

The organisation of the station and adjacent public spaces is part of an overall urban redevelopment of the neighbourhoods bordering the port of Casablanca.

The interchange hub has been designed to meet the increase in traffic expected by the Moroccan national rail operator (ONCF) and houses, under its large roof, waiting areas, circulations, services as well as retail outlets and a two-tier underground car park facility. The station's potential for development was taken into account at the design stage, thus making it possible to create a connection with a future underground RER station.

levels. Ngoc Hoi HSR hub also has the potential to serve as a shining example of how Transit-Oriented Development (TOD) can succeed, even within the complexities and scale of large railway projects.



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P. 104

Tongzhou train station China

In Beijing's Tongzhou district, AREP delivers a multimodal hub that merges intelligent lightweight structures, photovoltaic systems, and urban green corridors.

The Tongzhou transport hub is located in the Yangtuo region in the Tongzhou district (Beijing), within a triangle formed by the Sixth East Ring Road, the North Canal and the existing Beijing-Harbin railway line. The design not only expresses the essence of Beijing's traditional architectural elements, but also incorporates the "urban forest" concept by connecting to and integrating the surrounding urban green space to carve out a new ecological identity for this secondary hub. The design of the station's main roof evokes a combination of "sails". Seven small sails are laid out on the south-facing side of the main roof combined with the public realm and the retail outlets below. The space under the roof features "light bubbles" that illuminate the underground space. The plan aims to reclaim the land for the city by creating a traffic-calmed corridor throughout the area and by providing connections throughout the city to maximise the site's accessibility. The intelligent building concept revolves around lightweight structures embedded with green technologies, such as wind corridors, water systems and photovoltaic panels, to provide the best climate conditions for the buildings and create a new model of eco-friendly station.

The garden-like station is flanked by the central green space to the west and the Sixth Ring Park to the east, on the ecological thoroughfare of the central zone. The seven floating sails run through and protect the green thoroughfare from sunlight, thereby forming an urban park that extends both inside and outside the station and creating a vibrant, multi-dimensional space.



22

P. 98

Shanghai South train station China

Shanghai South train station reinvents the connection between train and road transport modes while the round shape of the building ensures operating fluidity. A flagship project by AREP.

The nontransparent polycarbonate sheeting and perforated metal on the inside, which all combine to filter and diffuse the natural light. All the areas are lit by lamp posts laid out according to a precise and well-thought pattern. AREP took into account the symbolic aspect of this specific architecture by incorporating the concepts of Chinese cosmology: the round shape symbolizes the sky and the square – the waiting area – represents the earth.



23

P. 102

Wuhan train station China

In Wuhan, AREP has designed a contemporary, multimodal and user-friendly station for the world's fastest line.

The construction of Wuhan's new station marks a major stage in the city's exponential development. In the midst of a demographic boom, the station accommodates 11 platforms and 20 tracks over 370,000 sqm. With its broad roof made up of a central structure stretching from east to west, complemented by four successive wings spreading to the south and north, the station boasts a strong identity within the urban landscape. Its organic shape, supported by lightweight structures, produces the effect of a bird taking flight, evoking the local legend of a crane bringing wealth and prosperity to the city's inhabitants. It also illustrates the movement and fluid design that characterise the project. The station accommodates all types of mobility and encourages soft modes of transport (walking and cycling). Its central, symmetrical, three-dimensional composition forms a balcony overlooking the city. It is located in the heart of the area undergoing urban development. In order to accommodate the different flows effectively both in time and space, the station functions like an airport, with separate departure and arrival platforms. The materials used are extremely simple, and the natural light is carefully controlled to optimise user comfort while reducing electricity consumption.



25

P. 108

Qinghe train station Beijing, China

Combining horizontal and vertical lines, AREP has delivered a new station set in a dense urban fabric that opens up the city to the natural landscape.

Qinghe train station constitutes a major interchange hub on the high-speed rail line connecting Beijing to Zhangjiakou. Designed as a window on the history of the city, it addresses the needs for accessibility, intermodal connections, uncluttered spaces, safety, brand image and urban development. Commuter cross flows are clearly separated, as it is always the case in Chinese stations of similar scale. The 220-metre long and 130-metre wide curved roof made of copper-coloured metal sheeting opens up the façades to the city. The west-facing floor-to-ceiling glass façade opens up onto a large pedestrian plaza which extends beneath the viaducts and commands sweeping views of Xishan mountain. The east-facing façade sits on a stone podium which faces the residential district.

The geometry of the structure is simple and applies easy to implement and cost-effective structural principles. The structure is composed of eight transversal ribs with a 25-metre space between them. They are supported by angled bents that are held firmly together on top and mark out the side halls at the foot of the building. The project makes careful use of natural resources with emphasis on natural light and water harvesting systems.

The terminal must adapt to global warming and its spaces have been designed accordingly: albedo and colorimetry of the exposed surfaces, green spaces, and natural ventilation combine to achieve bioclimatic comfort, thermal delight, and lighting. The Saint-Malo ferry terminal has been designed according to four principles, brought together in an innovative way: enhancement the existing infrastructure and adaptability, soil unsealing and biodiversity, simple and low-impact materials, post-carbon approach and integration into the landscape of renewable energy sources.

27

P. 114

Luxembourg Railways administration building Luxembourg

AREP has designed a sleek, flexible, and comfortable office building for Luxembourg Railways. The site is very complex and constrained by the rail tracks running 500 metres from the Central Station.

The project features a building that is both linear and fragmented: the elements are organised on either side of a central hall that reflects the idea of a train station as a lively, shared space, accommodating flexible programmes. It creates a meeting place bathed in light and providing thermal comfort. Footbridges on all floors connect the different parts of the building.

Plants and trees are prominent in the design of the building: They are present not only in the outdoor spaces but also in the patios and the central hall as well as on the flat roofs that are accessible to users. The landscape layers framed by rails embedded in the ground create a seamless transition between the public realm and the interior street.

The plinth walls made from gabion baskets will support climbing vegetation. The tertiary buildings of the future must feel like home. This is why we have paid special attention to uses. The large concourse provides semi-outdoor, thermally comfortable spaces for digital nomads and remote workers. The vertical and horizontal circulations become places where people can spend time, socialise, and work in a relaxed and casual atmosphere.

Acoustic comfort is one of the major priorities of the project. We have reduced noise from the outside by implementing high-performance façades incorporating a double-skin complex to meet the desired acoustic requirements (BREEAM Excellent rating + WELL Platinum rating).

Coffer ceilings with an absorbing material on the roof underside and occasional reinforcements on the vertical walls in the interior street provide acoustic comfort in the interior spaces.



26

P. 110

Saint-Malo ferry terminal France

In Saint-Malo, AREP is inventing a new architectural archetype for the ferry terminal of the tomorrow, which embodies the future of post-carbon travel while preserving the natural, built and intangible heritage of the site.

At a time of climate emergency, ferry terminals must change. They are still considered as places associated with fossil fuel combustion and combustion-engine vehicles, whether the latter operate on land or at sea. The new Saint-Malo ferry terminal project has been thought as a low-impact architectural and landscape ensemble that can change over time to adapt to the shifting mobility patterns. Through this project AREP has imagined and designed a new architectural archetype. The seven-hectare site is open to the elements, the sun, the wind, the rain, and the sea spray. It sits on the edge of the sea and dialogues with the city ramparts. The sun can provide almost twenty times the energy needed, including the energy consumed by ships, buildings, and vehicles, thereby revealing the productive potential of this new archetype: the ferry terminal is a hub of mobility and low-carbon energy.



28

P. 116

Seafrigo headquarters France

The Seafrigo headquarters are located in a rapidly changing area, on the interface between the port and the historic city of Le Havre, and express the new urban vitality of the Citadelle district.

The building sits on an open site affording unimpeded views of the docks, the River Seine and the city. Extending the sea metaphor initiated by the ENSM (French Maritime Academy) building, the Seafrigo headquarters are moored alongside the Eure Basin. The east and west blocks of the building accommodate all the workstations in a total floor area of around 700 sqm ensuring equal comfort for a 400-strong staff. The width and structural continuity of the floors along with the footbridges linking them to one another on either side of the atrium on levels 1 and 2 provide a flexible distribution of the staff. Dynamic thermal simulations and calculations based on the RT 2012 regulations led to the following choices:

- Improved envelope performance due to the size and performance of glazing and the installation of motorised solar protection
- heat and cold generated by a heat pump
- photovoltaic panels on the roof.

The building qualifies for Bepos/E3C1 certification.

in this location, the satellite and the rocket that propelled it. The volumes also refer to the products manufactured by Hygea. The aerodynamic shapes are echoed in the curves of the operating theatres.

A passageway runs between the operating theatres operating rooms and the conference room, offering a journey of discovery. Visitors move around the three floors, seeing the original overall space as well as the interior of the rooms. The materials are used to create a smooth, shiny appearance that contrasts with the existing envelope of the old factory. The view can be extended beyond the boxes, towards the interior of the operating rooms through windows, or linger on particular features that have been highlighted, such as the staircase, the screen and its basin.

30

P. 120

Hangzhou Sports Tower China

AREP designed for the city of Hangzhou a large public sports facility intended to host the 2022 Asian Games.

The "Sports Tower" sits on 84x84-metre square base. The tower accommodates sports facilities on eight levels and a striped ramp leads pedestrians up to the rooftop belvedere. The Sports Tower stacks sports facilities on eight levels while the planted ground level accommodates other facilities (hotel, clinic, etc.) among sunken gardens and terraces stretching out in the continuity of the metro station.

A public, pedestrian-only ramp connects all levels, leading visitors from the park to the roof. This ramp, which is independent from the lifts and interior stairs, has a dual function: it acts both as a walkway offering sweeping views of the old town of Hangzhou and as a symbol.

The building marks the entrance to the new urban center and, from a technical point of view, addresses several specific constraints related to sports practice: Floor to floor height is 12.60 metres, which allows for the nine-metre ceiling height, necessary for ball games.

Thermal comfort is ensured through carefully studied stratified air-conditioning systems, as temperature in the sports areas must not exceed 17°C. The transparency of the building allows for natural light, thus reducing energy consumption.



29

P. 124

Hygea former satellite factory China

Through minimal structural intervention and strategic interior design, AREP has reconfigured Hygea's industrial heritage site into a high-performance biomedical innovation centre.

Hygea is a high-tech company specialising in the research, production and sale of biomedical products. The programme for this building includes an innovation centre combining offices, demonstration rooms, a research centre and exhibition spaces. This centre, located in a former industrial site, has been expanded and refurbished to accommodate visitors and researchers.

The choice of this location brings together two types of advanced technology, aerospace and surgery. The building previously housed the assembly centre for the Dongfanghong-1 satellite in the late 1960s.

The building envelope and structure have not been modified. The structure has been repainted with minimal interference in the implementation of the programme. The openings have not been enlarged or closed, in order to maintain the same presence from the outside of the building.

The formal concept is based on the type of product assembled



31

P. 124

Urban logistics hub France

Lyon's Urban Logistics Hub (ULH) project aims to meet the challenge of moving goods around the city in a carbon-free manner, thus addressing the issues of congestion and pollution caused by last-mile deliveries.

Located in the heart of the city, the Edouard Herriot port is a major strategic site. As a transit and distribution hub, the port is the terminal of departure for goods that arrive by rail, river and road. The goods are first sorted and grouped together and then dispatched across the entire metropolitan area via environmentally friendly and carbon-free distribution methods. The Urban Logistics Hub project, led by the AREP teams, comprises the construction of a logistics hub which, due to its flexible space organisation, will have the capacity to accommodate all projects, from those of small businesses to those of large operators. The infrastructure has been designed to blend in seamlessly with the environment and be consistent with the ongoing urban transformation of the Gerland district. It is composed of two buildings, the North and South blocks, rising in the centre of a plot of land on the port. The north building marks the entrance to the site. The south building, on the other hand, features a sleek architectural design with gradations of rhythms and volumes. The distinctive feature of this logistics hub in a dense urban environment is that it extends over several levels comprising logistics spaces, truck manoeuvring areas, ramps and offices stacked upon one another, intertwined. More than 26,000 sqm will be dedicated to all the functions the city needs: reception, sorting, last-mile distribution, order and delivery routes preparation, remote storage for retailers and artisans, integrated solutions for e-commerce trade flows, etc. Design flexibility allows the modular buildings to evolve with changing needs: warehouses can be converted into workshops which can then be used as office space and vice versa.

and completely refurbished. The building concentrates the railway maintenance process in one facility and features innovative technologies while achieving energy performance and a reduced carbon footprint.

The metallic structure of the facility frees the main volume from any posts thanks to a 60-metre span and a 13.50-metre free height, giving a lace-like effect to the lightweight, elaborate framework. The goal of the project was to design a modular space, allowing the building to change over time and to integrate new technologies. A series of skylights, combined with a 30-metre glass roof, let natural lighting in, reducing the need for electric lighting and ensuring a comfortable temperature.



33

P. 130

Creil urban footbridge France

A minimalist, post-carbon urban crossing.

The footbridge project at Creil station seeks to reconnect the station hub—anchored in the town centre—with the Northern edge of the railway plateau, an area shaped by its factories and industrial past. More than just a crossing, this urban footbridge is conceived as both a tribute to that heritage and a vision of a post-carbon future, respectful of the environment. Generously open to its surroundings, the structure embraces the landscape and pursues material efficiency through an optimised design tailored to long spans. Its minimalist language ensures a high degree of visual transparency, revealing the city's layered geography: the distant northern and southern hillsides, the nearby banks of the Oise River, and the old industrial halls—some still active—that border the railway tracks. The footbridge's steel structure is expressed and celebrated, a deliberate nod to the city's industrial know-how, still very much alive. Its bronze tone enhances its presence, catching the light and vibrating under the sun's reflections. The intelligence behind the precise and efficient structural design, combined with a poetic treatment of the pathways, contributes to an urban project that stages a journey through the city—a rational, balanced and sustainable intervention.



32

P. 126

Train maintenance facility France

AREP is reinventing solar-powered industrial buildings through solar panel-equipped 6,000 sqm roof.

AREP is one of the French leaders in railway maintenance facilities with more than twenty years of experience in the field. Now we are taking this type of buildings to a new level by implementing a post-carbon approach to their design. With a surface area of 24,000 sqm and a height of 18 metres, the Hellemmes maintenance facility handles all operations on "mid-life" high-speed Duplex trains in one place. For this purpose, high-speed train carriages are taken apart



34

P. 132

Luxembourg in Transition Luxembourg Functional Region

AREP and its partners won an international and multidisciplinary consultation led by the Grand Duchy of Luxembourg and conducted a vast prospective study between 2020 and 2022 in Luxembourg and its functional region. The goal was to map out a pathway to ecological transition by 2050 for Luxembourg and its cross-border metropolitan area.

What kind of spatial planning strategies can help achieve carbon neutrality by 2050? Spatial planning constitutes a fundamental matrix, likely to slow down or, on the contrary, to accelerate the shift in our lifestyles. The prospective study carried out by AREP and its partners (TAKTYK, Quattrolibri, Bureau Mobil'Homme BMH and the Institute for Environmental Transition of the Sorbonne University) aimed to map out a pathway to building a resilient and carbon-free future by 2050 for Luxembourg and its functional region. The challenge is enormous, both in terms of soil preservation and reduction of greenhouse gas emissions, as we are dealing with one of the highest carbon footprints in Europe.

In the face of the pressing environmental challenges, we have had the opportunity to develop a digital model, Flux, which has supported our reflection at a regional scale. By encouraging iteration between project and carbon metrics, flux made connections between proposals and "ecological value", through our project methodology.

To carry out this prospective study, the team proceeded in three stages. The first one consisted in understanding the context of the Luxembourg functional region and in preparing the ground for the methodology to apply. During the second stage we unfolded our strategic vision. The third stage led to a manifesto which summarises our vision in 16 key actions, details three lines of research and provides an overview of demonstration projects on five pilot sites.



36

P. 136

Oasis schoolyards Paris

As part of Paris' resilience plan, AREP delivers technical design and implementation for "Oasis schoolyards", combining nature-based solutions, climate adaptation, and functional versatility.

The programme of this initiative is part of the resilience strategy of the City of Paris, which comprises the transformation of schoolyards into "oases", true urban "cool islands".

Within this context, AREP is working with the City of Paris to transform the schoolyards of the 11th arrondissement through the following actions:

- Unseal the soil of and massively planting the schoolyards to mitigate the heat island effect
- Reconnecting children living in the city with nature through the senses (touch, taste, smell, etc.)
- Diversify uses and age groups through active games, relaxing games, vegetable gardens, reading, outdoor classes, etc.
- Foster gender-neutral uses: make room for both girls and boys in the schoolyards
- Consider schoolyards as a learning resource for awakening, experimenting and developing learning.



35

P. 134

Children Streets Paris

AREP assists the City of Paris in implementing schemes aimed at pedestrianizing and restricting motorised traffic in the streets around the capital's nursery and elementary schools. The goal is to create child-friendly public spaces.

In parallel with the design and creation of street prototypes around schools for the City of Paris, AREP explored the place of children, and generally the place of the different age groups in public space. The goal is to imagine how people can reclaim public space so that the city becomes a highly walkable place. The idea is to create an ecosystem where school streets provide favourable conditions for various uses and can accommodate different profiles at different moments of the day.

The Children Streets project in Paris consists in:

- Proposing new codes, new rules of the game (learning outside the class, urban gardening, sports practice in public space...)
- Playing with context and blurring boundaries
- Reclaiming space through greening and reintroducing biodiversity in the city
- Amplifying uses and fostering social ties at different moments of the day
- Blending in the Parisian identity and what is already there.



37

P. 138

Banks of Hoan Kiem Lake Hanoi, Vietnam

In the centre of Hanoi, Lake Hoan Kiem is a major historical and heritage site in the Vietnamese capital. In 2015, as a result of an international competition, AREP was selected to design an ambitious project for the renovation and embellishment of the public spaces around the lake.

The lake is the symbolic heart of the Vietnamese capital and carries great spiritual value. It also fulfils multiple functions: it is a major heritage area with historical, cultural, urban and landscape significance; it offers the largest open-air public space in the capital, open exclusively to pedestrians at weekends; and, finally, with its lush vegetation, it forms a green lung and a familiar park for the city dwellers, who enjoy their daily activities there.

AREP was present at every stage, from design to completion, to ensure the quality and coherence of the project. The team coordinated the design studies, which brought together decision-makers, partners and residents throughout the studies and works. The approach was multidisciplinary and participatory, and several public exhibitions were organised for the local population. The project was inaugurated on October 10, 2020 to coincide with Hanoi's 1010th anniversary celebrations.

By improving the pedestrian walkways, street furniture and lighting, by preserving the city's heritage buildings, by highlighting the lake's natural landscape and connecting the lake to the surrounding areas, AREP has created a vibrant, accessible public space that showcases the city's exceptional.



39

[P. 142]

New TGV INOUI France

New designs with a sleek aesthetic and a touch of poetry, created to maximise passenger comfort aboard the new French high-speed train.

The designers from AREP Group and the Japanese agency Nendo joined forces in 2018 to design the line of the new TGV train that will be in service from 2026. The Flow design concept announces a new experience in the railway environment, from the front of the train to its interior fittings. It reflects the train's ecological ambition and AREP's commitment to a post-carbon design.

The two agencies have formed a joint project team to maximise synergies between designers and with the teams from Alstom and SNCF Voyageurs. They have adopted an iterative method including user tests, atmosphere workshops and prototyping phases at Alstom in La Rochelle.

This approach enables them to work step by step to scrutinise the project in the light of the requirements of a high-use industrial design object, always bearing in mind the flow, the initial concept of the project. The 'flow' is based on a simple idea: the train is unlike any other means of transport, it carves its way through the landscape, a bit like a river flowing. The concept thus plays with a fluid horizon line that runs through all the elements, gives a horizon, reinforces the perspective and evokes the surface of the water.

All the interiors and details have been redesigned with a central theme: comfort. The idea was to take a fresh look, to introduce a lasting break in the railway world and to re-enchant a technical and industrial environment in order to create a softer and more personal bubble of comfort in a shared space.

These developments also reflect the ecological qualities of the train and our commitment to a post-carbon design. 97% of the materials used are recyclable. On the outside, light colours reinforce the albedo and reduce energy consumption in summer.



38

[P. 140]

Greater Annecy, the archipelago conurbation France

AREP has carried out a prospective study for the ecological transition of the Greater Annecy area by 2050.

With its lake, its mountains, its economic activity zones and its natural and agricultural areas, the Greater Annecy area is attractive. Over the past 50 years, its population has doubled. The region needs to reinvent its path forward to meet the current and future environmental and demographic challenges that put it under strain. How can the region adapt to the challenges of tomorrow? How can it become a shining example in terms of sustainable development?

These were the questions asked by the Committee for Architecture, Planning and Environment (CAUE) of Haute-Savoie and by the Greater Annecy conurbation. They tasked AREP with carrying out a prospective study aimed at analyzing the specific features of the Greater Annecy area and exploring its potential resilience. We have imagined three possible futures, three scenarios for the ecological transition of the Greater Annecy area by 2050 revolving around the idea of the archipelago, an idea which is very present in the imagination of local authorities and residents.

The three paths are deliberately distinctive and are supported by narratives that invite people to get involved:

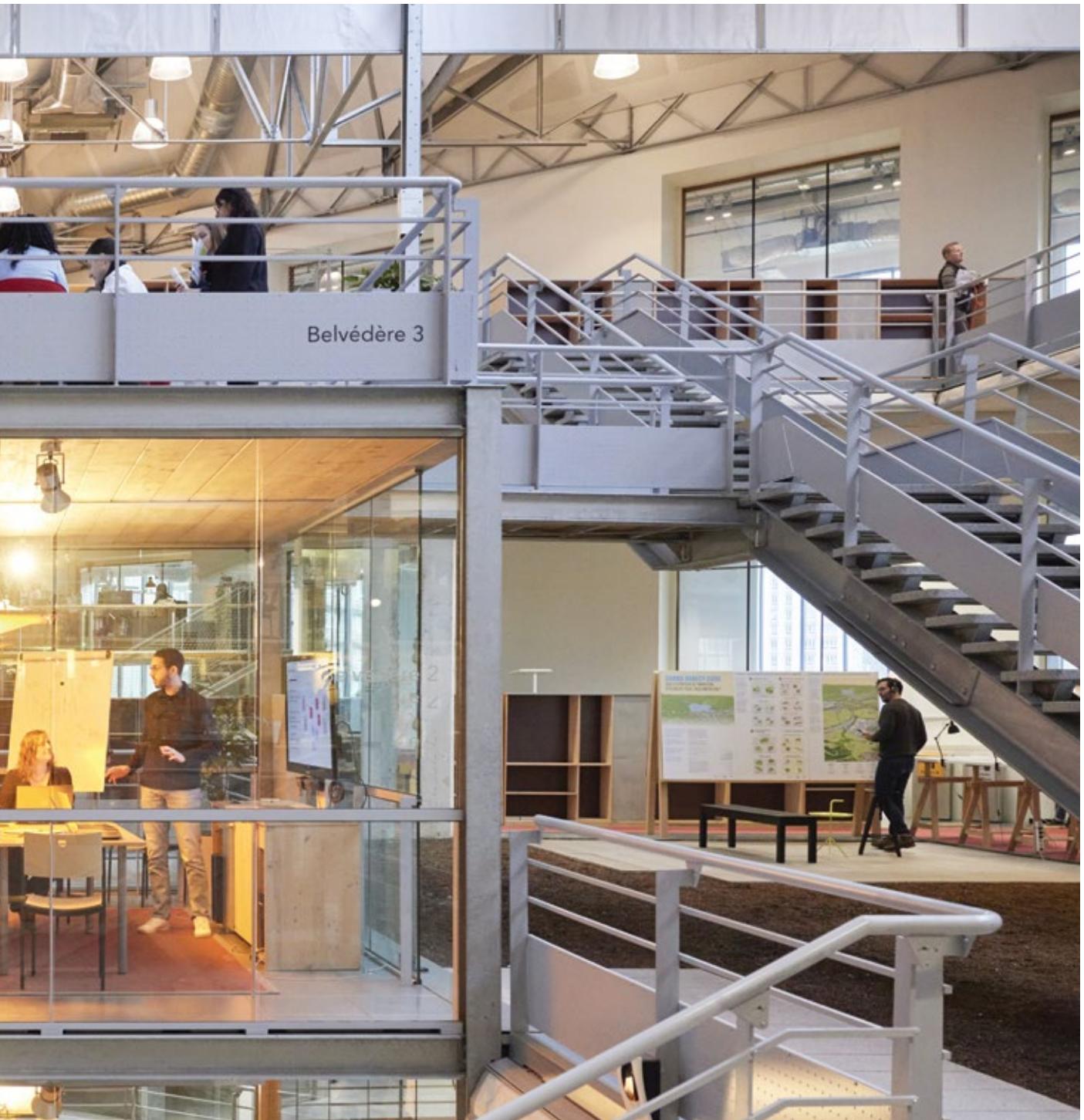
- The "scattered archipelago", a scenario that does not fundamentally question the current model but seeks to limit its effects through technologic innovation.
- The "negotiated archipelago" scenario, where development relies on the strong cooperation with the neighboring areas mediate scenario, thus questioning the notion of archipelago on a larger scale.
- The "archipelago of the commons" scenario, which explores how land-use planning could support a profound shift in lifestyles.

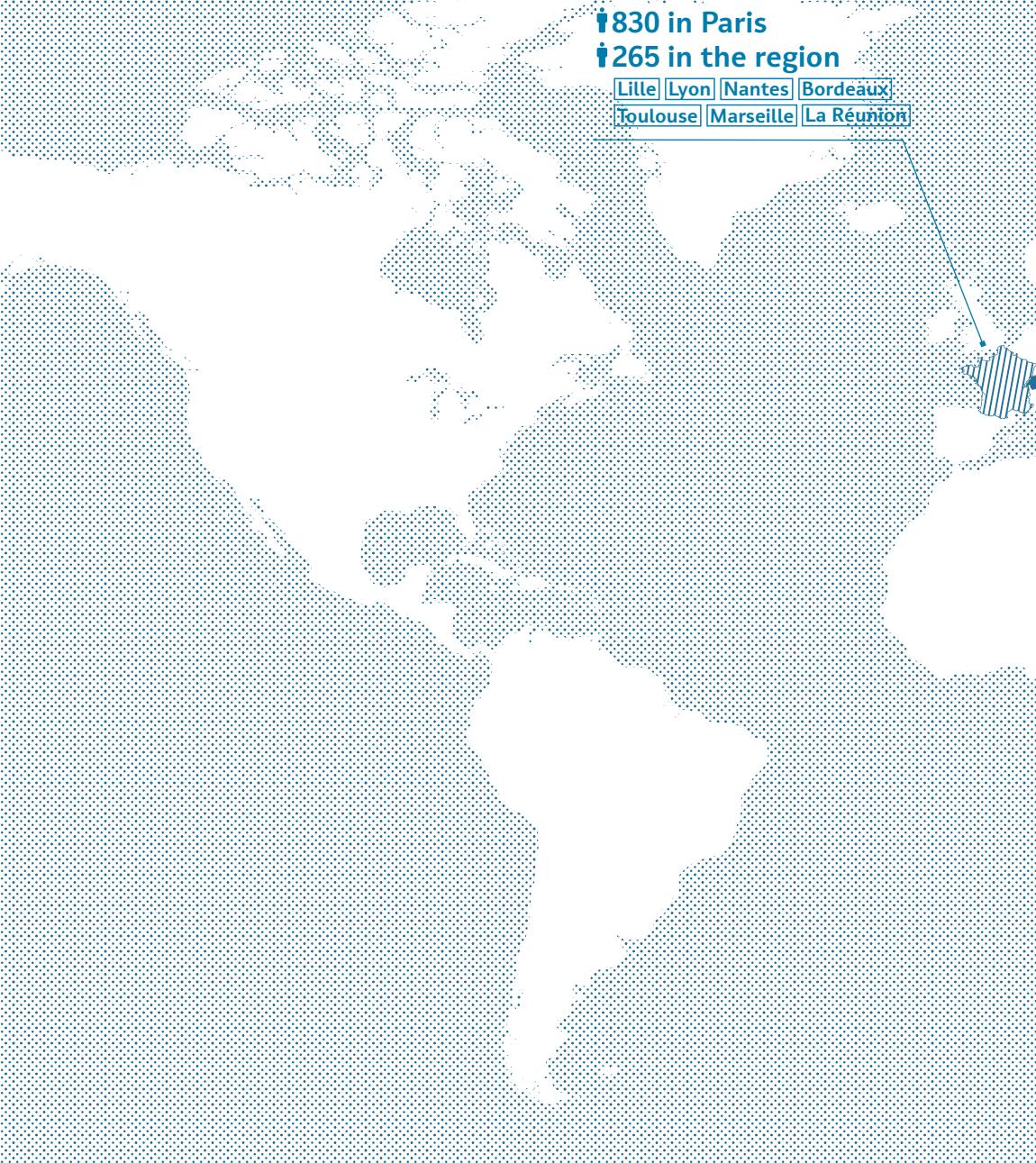
At the end of this project, the local authorities should have a wider vision of the Greater Annecy model and its potential for development and change in the future. The prospective elements we provide and the transition metrics we use to compare the three scenarios will help local authorities to make informed decisions regarding the strategic orientations of the conurbation and define an operational framework for the projects to come.

This prospective study sits between collective imaginary and metrics and ushers in a new era of regional planning. After a first period focusing on functional specialization and a second age that saw cities pitting against one another in a race for attractivity, the time has now come to converge towards common climatic targets while taking into account the economic issues.

Who we are







1830 in Paris
265 in the region

Lille Lyon Nantes Bordeaux
Toulouse Marseille La Réunion

Key figures AREP Group

1 unique
multidisciplinary
offer

Project management
and design
Strategy, consulting
and project management
assistance
Expertise & simulation

1,050+
employees
in France,
Switzerland,
China,
and Vietnam

53% women
47% men



39 years old
on average
40 nationalities

1,000+
projects every
year

144 M euros
turnover 2024

The management team

Raphaël Ménard

Chairman of the Board

Raphaël Ménard studied at the Ecole Polytechnique, the Ecole des Ponts ParisTech and the Paris-Belleville School of Architecture. He began his career at RFR (design of the Simone de Beauvoir footbridge in Paris and the glass shell of Strasbourg's train station). In 2003, he founded Elioth, a company made up of designers specialising in low-carbon innovation (acquired by the Egis group in 2011). In 2014, he created 169-architecture. He is also a lecturer on the postgraduate program in post-carbon architecture at the Marne-la-Vallée School of Architecture. He theorised his practice in numerous publications, including his Ph.D thesis Energy, Matter, Architecture. In 2018, he joined AREP Group as Chairman of the Board.

Philippe Bihouix

Managing director

Philippe Bihouix studied at the Ecole Centrale de Paris. He began his career as a construction manager in a general contracting firm before switching to consulting. In 2009, he joined the SNCF group to manage the European rail freight activities. As a consultant engineer, Philippe Bihouix gained experience in many industrial sectors (energy, chemistry, transport, building engineering, aeronautics) before becoming a leading expert on non-renewable resources and low-tech solutions. He has been appointed to the AREP Group Board of directors as Managing director in order to implement the company's new strategy and contribute to the sector's ecological transformation.

Technical Departments

- Émilie Hergott and Julien Dallot, *Building Design & Production*
- Hiba Debouk, *Urban Studies & Regional Planning*
- Céline David, *Design*
- Donatien Frobert, *Engineering*
- Élise Dageons, *Consulting & Programming and Project Management & Ownership Services*

Business Departments

- Céline Portaz, *France & International development*
- Luc Néouze, *International subsidiaries*

Support Departments

- Alexandre Bouvresse, *HR, CSR & Workplace Experience*
- Bérengère Jaillon, *Finance, Information Systems and Strategic Leadership & Performance*
- Émilie Lacaille, *Legal & Compliance*
- Matthieu Lerondeau, *Communications & Impact*

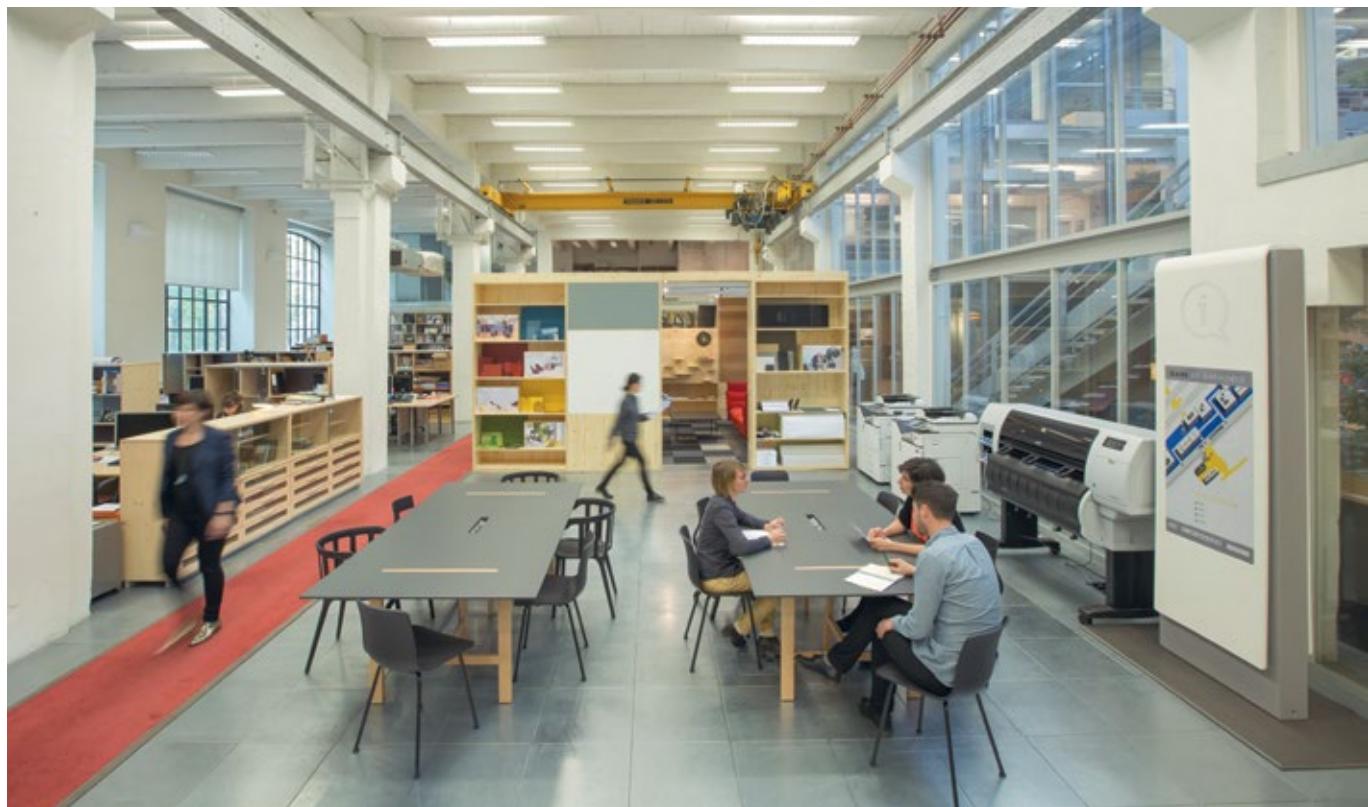
We are client-oriented

Flexible and with open-ended roles, AREP Group's organisation is first and foremost client-oriented. We tailor our teams and expertise to the expectations of our clients and to the specific nature of each project and assignment. At every scale of operation, our teams question practices and challenge conventional thinking to help our clients work towards a post-carbon Future. Responsive and agile, our employees demonstrate multidisciplinary know-how which sits at the crossroads of architecture, mobility, and regional planning, blurring the boundaries between fields.

Each project, each mission becomes an opportunity for interaction and exchange. With humility, we learn from actors who experiment with alternative ways of doing things and who break down the boundaries associated with the traditional typologies of production. AREP Group considers itself as a catalyst, an incubator of this ecosystem, a laboratory fostering interaction, particularly with the small structures at the forefront of ecological and social issues.

To build post-carbon future, we need every source of inspiration! We have joined forces to create exemplary projects, which meet the actual needs of users. This commitment is reflected in five key principles that are at the heart of our design method:

- Collaborative enthusiasm
- Focus on uses and people
- Time and cultures
- Space and forms
- A post-carbon future driven by economic frugality





A unique multidisciplinary offer

Project management and design

- Architecture*
(Transport, Industrial facilities, Infrastructure, Building retrofit and Heritage building expertise)
- Interior design
- Signage
- Urban studies, landscape
- Public space design
- Industrial Design
- Engineering

Strategy, consulting and project management assistance

- Forecasting & Regional strategy
- Programming & Real asset advisory
- Architecture and Heritage buildings: Strategy & Project management assistance
- AMO (Execution - Operation and Maintenance, Environment)
- Project management consulting & coordination
- Training
- Consultation and co-design
- Service design

Expertise & simulation

- Flows and mobility analysis
- Data, geometry & digital tools
- Graphical representations & renderings

Practice

Architecture*

- Railway stations and mobility architectures
- Rehabilitation and transformation of existing buildings
- Expertise in heritage buildings
- Industrial, railway and logistic facilities
- Crossing facilities and structures
- Modular and experimental architecture
- Works supervision

Engineering

Specialities

- HVAC (including thermal comfort and air quality)
- Electricity
- Construction economics
- CFD expertise (Lhypercube)
- Acoustics and sound engineering
- Fire safety
- Accessibility

Project Engineering

- Project management
- Environmental engineering
- Environmental expertises and simulations (EMC2B)
- Data, geomatics engineering, and digital tools

Consulting and project definition

- Urban Programming
- Industrial and technical programming
- Facility programming
- Optimisation and development of existing buildings
- Transport facilities and public space programming
- Foresight of future needs for facilities

Planning, public space and mobility

- Forecasting and regional strategy
- Urban and regional planning
- Landscape architecture
- Public spaces, roads, and utilities infrastructure
- Flows and mobility expertise
- Mobility and flow modelling

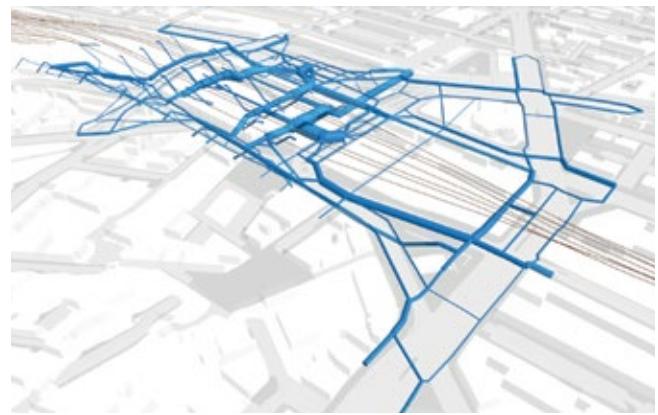
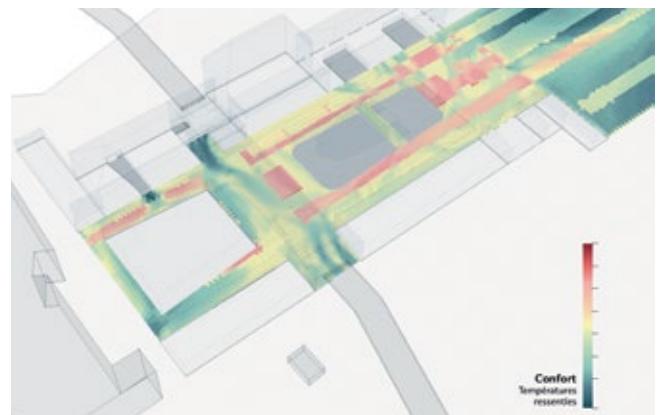
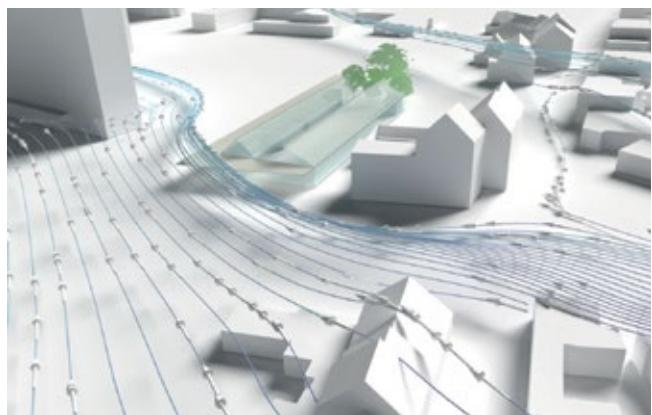
Design

- Spatial and interior design
- Industrial design
- Graphic design & signage
- Service design

Project management office

- Project operations management
- Project management
- Delegated project management for the client
- Upstream project consulting
- Asset management
- BIM consulting services

* Through AREP Architectes



Our areas of expertise

Hypercube

Our research unit for engineering, energy, and fluids, Hypercube, provides cutting-edge expertise in modelling physical phenomena related to climate comfort and air quality through digital simulations and data analysis.

Flows and mobility

We help clients define and implement sustainable mobility strategies, and we work with architects and planners to optimise projects by considering pedestrian flows.

Photovoltaic strategy

AREP Group is involved in the entire solar engineering value chain, from the initial phase, consisting of defining a company strategy and identifying a project, to its technical and administrative development.

REAP

A multidisciplinary team dedicated to the reuse of materials. Its role consists of raising awareness and helping AREP experts incorporate reclaimed materials into their projects. They also provide consulting services in the field of material reuse.

Research

Here at AREP, we pride ourselves on the exploratory approach to projects. To invent a post-carbon future, we question our certainties, update our knowledge, and open up new practical and conceptual perspectives. Independent and critical, our research contributes to the discussions that shape the future of urban areas. AREP is actively involved in numerous partnerships and research programmes, and also have strong ties with the world of academic research and teaching.

AREP publications



POST, la revue post-carbone d'AREP n° 4
Post, Nunc, Ante
AREP Éditions – 2025



Végétaliser les parvis de gares
Guide pratique
AREP et Gares & Connexions – 2025



Halles soleil, climat, cohue
AREP Éditions – 2024



POST, la revue post-carbone d'AREP n° 3
Nous sommes les 0,01 %
AREP Éditions – 2024



Réparer le futur
Hiba Debouk
AREP – 2024



Grand Annecy - Prospective pour 2050
AREP Éditions – 2024



Atlas bioclimatique des grandes gares parisiennes
Stratégie et plan d'action d'aujourd'hui à 2050
AREP Éditions – 2023



POST, la revue post-carbone d'AREP n° 2
Aux (re)sources de l'urbain
AREP Éditions – 2023



L'abondance invisible
Simon Bergounioux
AREP Éditions – 2023



Luxembourg in Transition,
Paysage capital
AREP Éditions – 2022



POST, la revue post-carbone d'AREP n° 1, L'échelle
en question.
AREP Éditions – 2022



Creating a post-carbon station
Raphaël Ménard
AREP Éditions – 2021

To structure our approach, we have built our programme around 6 themes:

- Resources and materials
- Land use & biodiversity
- Energy & sense of place
- Representations & collective imaginary
- Design & adaptation
- Architectures & mobility



Research
Activity report

Collective works

La Ville Low tech, vers un urbanisme de discernement
ADEME – 2020

Projet de recherche Frugacité: FoRmes Urbaines des quartiers de GAre ou à fortes Contraintes et biodiversITÉ
PUCA/OFB/AREP/Université Paris 1 – 2020

Scientific papers and communications

Auvray Alexandre, "Prise en compte de l'hétérogénéité des morphologies urbaines pour modéliser la connectivité paysagère en ville", colloque Demain, Nature et ville?, 2022

Bogdan Mateusz et al., "Calcul des facteurs de forme entre polygones. Application à la thermique urbaine et aux études de confort", conférence IBPSA France, 2022

Franz Hannah, et al., "Inventory Tools and Strengthening Measures for Historical French Metallic Train Sheds (1850 - 1931)", Railway Heritage Preservation Conference, 2022

Le Bot Nils, et al., "Renewing Urban Models: Does the City Need Low-Tech?" Conference of the International Forum of Urbanism (IFoU), 2022

Striffling-Marcu et al. Veston, 2022. "Patrimoine ferroviaire du XX^e siècle: quelle reconnaissance et quelles adaptations pour sa conservation?" In Situ, no 47

Delarc Morgane, "Réinventer le mobilier urbain à Paris". In Les espaces publics urbains: penser, enquêter, fabriquer, par Fleury et Guérin-Pace, Perspectives Villes et territoires, 2022

Credits

Our approach [P.06]

AREP / photos M. Huriez, M. Lee Vigneau,, A. Guitard, D. Giancatarina, J. Lelièvre, T. Chapuis
M. Nguyen / NOI Pictures
SNCF – AREP / photo J. Cardona

Jihlava train station

Czech Republic [P.16]

AREP / illustrations ZDAR

Budapest Nyugati station

Hungary – 2021 [P.18]

AREP / illustrations K2Visual-com

Lausanne train station

Suisse [P.20]

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Torino Porta-Susa train station

Italy – 2015 [P.22]

AREP / photos M. Lee Vigneau, M. D'Ottavio

Linz Tram-Train stations

Austria – 2025 [P.26]

AREP / illustrations DTFLR

Brussels underground northern extension

Belgium – 2032 [P.28]

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Nîmes Pont-du-Gard train station

France – 2019 [P.30]

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Saint-Jean-de-Maurienne train station

France – 2022 [P.34]

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Saint-Michel Notre-Dame train station

Paris – 2023 [P.38]

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Saint-Lazare train station

Paris – 2012 [P.40]

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Rennes train station

France – 2019 [P.44]

Photos A. Séguin

SNCF G&C – AREP / photos M. Lee Vigneau

Paris-Nord train station

"Horizon 2024"

Paris – 2024 [P.48]

AREP / photos G. Satre

Paris-Lyon train station

Paris – 2021 [P.52]

SNCF G&C – AREP / photo M. Lee Vigneau, C. Le Breton

La Défense Grande Arche station

France – 2024 [P.54]

AREP / photos Y. Audic

Paris Porte Maillot-

Palais des Congrès station

France – 2024 [P.56]

AREP / photos Y. Audic

Avignon high-speed train station

France – 2001 [P.58]

SNCF G&C – AREP / photo ALTVUE

SNCF – AREP / photo S. Lucas, D. Boy de la Tour

Marseille Saint-Charles train station

France [P.62]

AREP-Atelier Roberta / illustrations J. Wang

Paris Austerlitz train station

France [P.64]

AREP / photo G. Satre

Nice Airport train station

France [P.68]

AREP / illustrations J. Wang

Grand Passenger Halls [P.72]

AREP / photos S. Rivière, G. Satre,

Y. Audic

Signage [P.76]

AREP / photos Y. Audic, M. Lee Vigneau

Footbridges [P.80]

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AREP / illustrations F. Egreteteau – agence Nighthnurse

AREP / illustrations Ailleurs INUI

AREP / photo anaelb.com, Florent Husson

Public Spaces [P.84]

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Solar [P.88]

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Franck Debaecker

Casa Port train station

Morocco – 2014 [P.92]

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Hanoi HSR train station

Vietnam – 2024 [P.96]

Illustration AREP

Shanghai South train station

China – 2006 [P.98]

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Wuhan train station

China – 2009 [P.102]

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Tongzhou train station

China – 2024 [P.104]

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Qinghe train station

Beijing, China – 2019 [P.108]

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Saint-Malo ferry terminal

France – 2026 [P.110]

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Luxembourg Railways administration building

Luxembourg – 2023 [P.114]

AREP / illustrations J. Wang

Seafrigo headquarters

France – 2024 [P.116]

AREP / photo P. Hamelin

Hygea former satellite factory

China – 2024 [P.118]

AREP / photos Baimo Architectural Photography

Hangzhou Sports Tower

China – 2022 [P.120]

AREP / photos Rudyku

Urban logistics hub

Lyon – 2023 [P.124]

AREP / photo S. Rivière

Train maintenance facility

France – 2021 [P.126]

AREP / photos L. Le Fur

Creil urban footbridge

France – 2029 [P.130]

AREP / illustrations Ailleurs Studio

Luxembourg in Transition

Luxembourg cross-border region – 2022 [P.132]

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Chidren Streets

Paris – 2021 [P.134]

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Oasis schoolyards

Paris – 2022 [P.136]

Photos AREP

Banks of Hoan Kiem lake

Hanoi, Vietnam – 2020 [P.138]

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M. Lou Gani Nguyen / NOI Pictures

Greater Annecy, the archipelago conurbation

France – 2022 [P.140]

Illustrations AREP

New TGV INOUI

France – 2022 [P.142]

SNCF – AREP / photos Y. Audic

Who we are [P.158]

AREP / photo D. Boy de la Tour

AREP / photos Y. Audic

Our areas of expertise [P.166]

AREP (Lhypercube, Flux et mobilités)

SNCF – AREP / photos M. Lee Vigneau

SNCF G&C / photo D. Pelof

Photos AREP (RÉAP)

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