AEROPORTO FIERA MILANO LINATE

AIRPORT EXPERIENCE MACHINE

complex **CP** projects

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Bodies & Building Milan

Aeroporto Fiera Milano Linate

Airport Experience Machine

Complex Projects

TUDelft

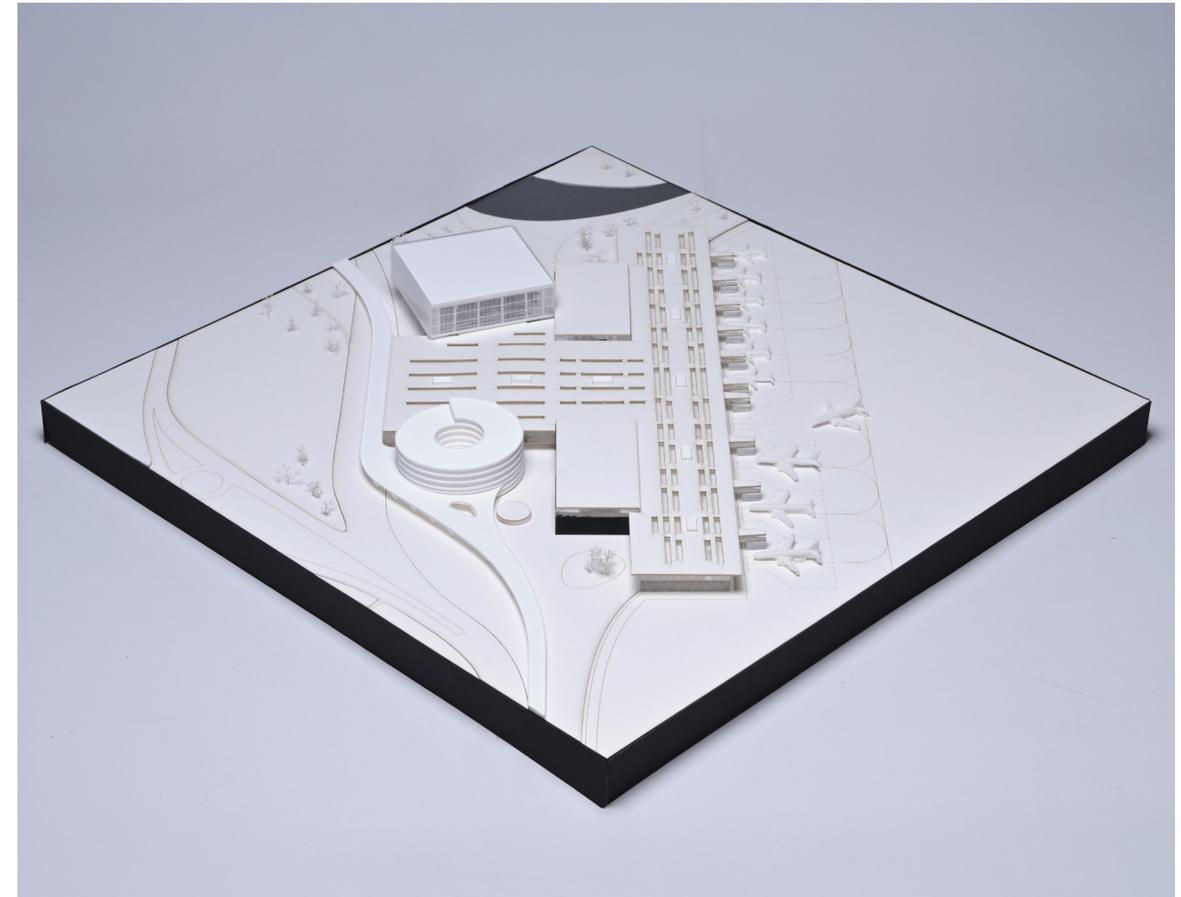# Aeroporto Fiera Milano Linate

This book documents the comprehensive design process of an airport building, developed as a master thesis project situated within the dynamic urban context of Milan.

The design evolved through individual iterative explorations, each step deeply informed by extensive research into the existing site and its unique cultural, social, spatial, and functional characteristics. This approach allowed for a reimagining of the traditional airport typology, transforming it into a flexible and multifunctional environment that responds to the complexities and demands of contemporary, and future urban life.

The design process began with a rigorous research phase, which involved mapping and analyzing the current site conditions, identifying emerging urban trends, and studying a large comparative database of high ranking airports and event venues worldwide. These investigations highlighted the need for a building that transcends the conventional role of a transit hub, one that integrates spaces dedicated to social interaction, leisure, and cultural engagement. By positioning experience and events as central programmatic elements, the project aims to transform the airport into an inclusive public destination: a vibrant node within Milan's urban fabric that welcomes and supports a diverse range of users and activities.

Furthermore, this airport design is part of a broader vision under the "Bodies and Building" theme, which explores how large-scale infrastructure can be reimagined as active, interconnected elements of the city. The project aligns with a larger city strategy focused on enhancing Milan's urban quality through a network of multifunctional buildings, including transportation hubs, cultural institutions, and public spaces. These interconnected designs are conceived as complementary urban bodies that activate their surroundings and foster meaningful connections across the city. By situating the airport within this framework, the project not only addresses the functional needs of air travel but also contributes to Milan's cultural and social vitality, creating a cohesive urban experience that blurs the boundaries between infrastructure, architecture, and public life.

Building model scale 1:1500

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INTRODUCTION

01

Bodies & Building Studio
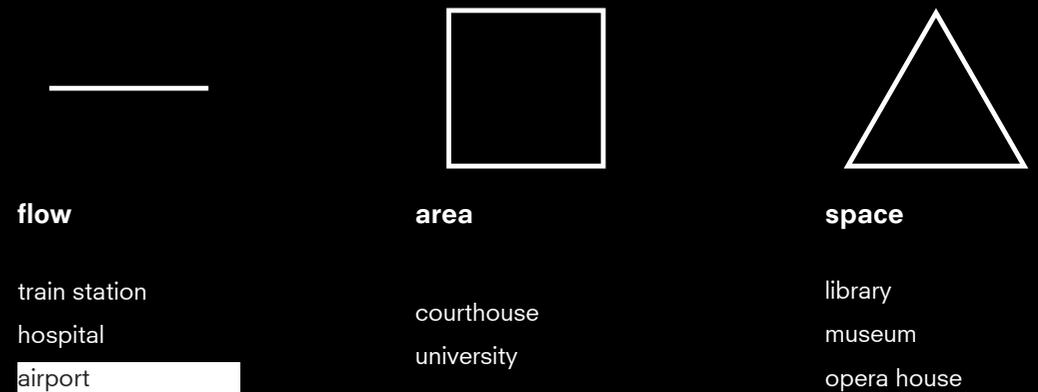
Within the studio "Bodies and Building" the project seeks to explore how to design for the "Bodies", human users, by addressing the human scale and user needs. It focuses on understanding how architectural design can create spaces that serve and respond to their users. Within the broader context of Architecture and the Built Environment, the project examines how the interaction between bodies and buildings can and will impact the greater sense of its context.

Each student is assigned one building typology. This project entails the typology of airport, a typology within the category of 'flow'. Airports are unique systems of intersection of many architectural topics. Its design involves themes such as the layering of functions, zoning, efficiency, technology, sustainability, and user experience. Its complexity makes them the ideal case to learn and experiment with, while exploring evolving design practices and innovative solutions.

The studio's objective gives rise to a comprehensive city-wide strategy, where each building is conceived not as an isolated object, but as an integral component of a broader urban vision. Every structure is designed to respond in a unique and context-specific way, shaped by its immediate environment and programmatic needs. This network of architectural responses fosters a cohesive urban identity, allowing the entire ensemble to engage with Milan in a collective, dynamic, and responsive manner. Through this approach, architecture becomes a tool not only for shaping individual spaces but also for contributing meaningfully to the evolving narrative of the city as a whole.

flow

train station
hospital
airport

area

courthouse
university

space

library
museum
opera house

Non-Places

An Introduction to
Supermodernity

Marc Augé

PEOPLE ARE ALWAYS ON THE MOVE

PLACE TO PLACE

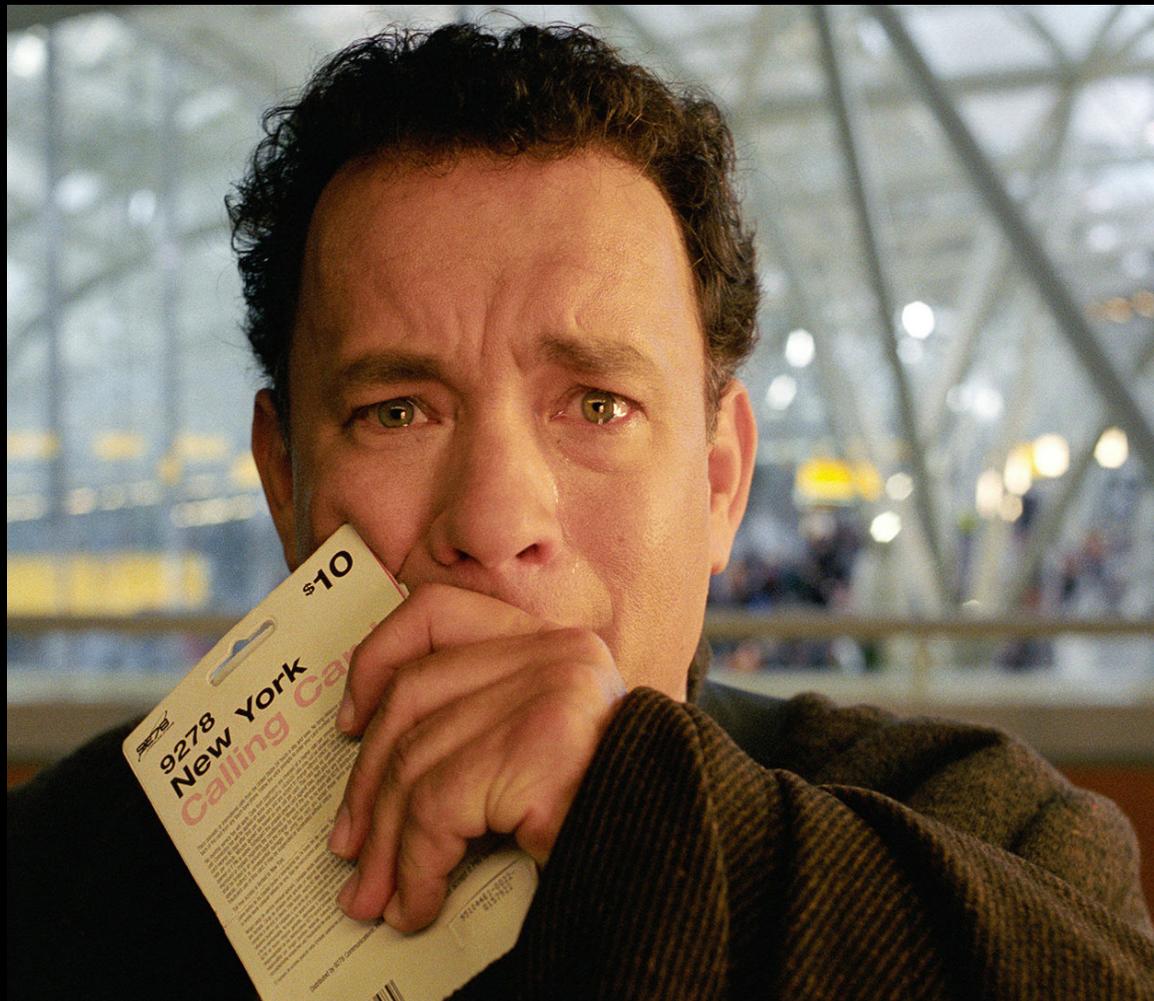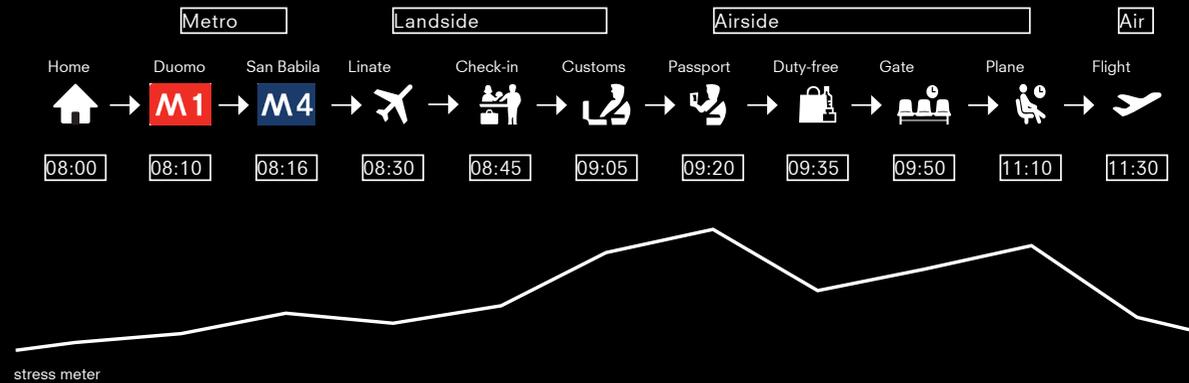BETWEEN PLACES

WITHOUT INTERACTION

CONNECTION

IDENTITY

PLACES TO ENDURE

RATHER THAN TO ENJOY..

People are always on the move, from place to place, between places without interaction, connection or identity. These non-places include places such as highways, train stations, gas stations or airports. These places have become places to 'endure rather than to enjoy'. The average contemporary airport aligns with this theory, Marc Augé's 'Non-Places' theory.
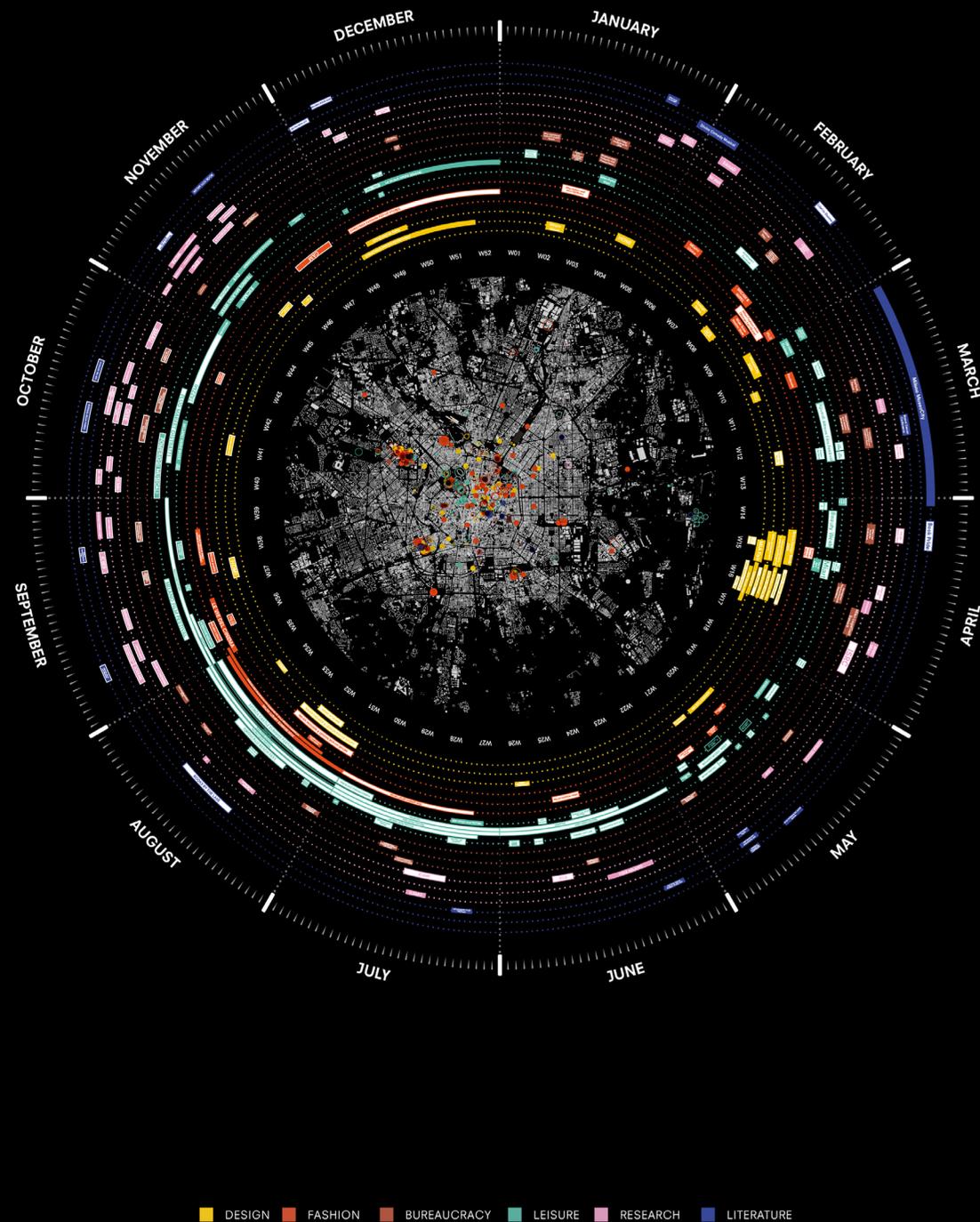
The 'Non-Place' Airport

Metro			Landside			Airside				Air
Home	Duomo	San Babila	Linate	Check-in	Customs	Passport	Duty-free	Gate	Plane	Flight
08:00	08:10	08:16	08:30	08:45	09:05	09:20	09:35	09:50	11:10	11:30

stress meter

We might compare the contemporary airport traveler experience to that of Viktor Navorski, Tom Hanks' character in The Terminal (2004), who finds himself stranded in an airport for months. His experience marked by endless waiting and forced adaptation highlights the airport's fundamental design flaw: it is not intended as a space for human interaction, comfort, or belonging. Despite being hubs of global connection, most airports remain emotionally sterile, designed primarily for functionality and speed rather than for fostering meaningful human experiences.

Modern airports are environments of heightened stress and disorientation. They operate at a fast, relentless pace, where travelers must constantly manage tight schedules, navigate complex signage, and endure rigorous security procedures. The choreography of movement—check-in, security, boarding—is designed for throughput, not ease. Crowds, noise, and long queues only add to the cognitive and emotional burden. In this context, the airport becomes less of a civic space and more of a transitional machine—a place that processes people rather than accommodates them.

This transient, impersonal nature of airports reinforces a disconnect between people and place. Most terminals lack any sense of rootedness or cultural identity, offering instead a generic, globalized aesthetic. The architecture tends to prioritize efficiency, uniformity, and control over comfort, community, or engagement. As a result, travelers often experience airports as spaces to endure rather than enjoy—temporary thresholds between real destinations rather than destinations in themselves.

In rethinking the airport, there is an opportunity to challenge this norm and explore how design can reconcile efficiency with emotional resonance, transforming these spaces from non-places into environments that acknowledge and support the human experience.

Culture Lens

Milan event calendar

DESIGN   FASHION   BUREAUCRACY   LEISURE   RESEARCH   LITERATURE

Experience in Context of Milan

Within the Complex Projects Studio, each group of students chooses a group theme, a lens through which to approach the project's location, the city of Milan. Using this lens, students can develop a deeper understanding of the site's context. Based on this research, they are tasked with creating a group strategy that will inform and shape their designs. The individual projects then serve as a response to this collective research.

The Design Brief for this project is grounded in research done through the 'Lens of Culture'. This lens serves as a toolbox, guiding and informing the airport design.

Research By Design

The research will be conducted with the method of research by design. This approach integrates iterative design processes with in-depth analysis, allowing for the exploration and testing of architectural concepts in response to the posed problem. Techniques such as site analysis, case studies, precedent research, and spatial modeling will be employed to inform the design process. Visual tools like sketches, diagrams, and 3D modeling will be used to develop and evaluate design solutions, ensuring a comprehensive understanding of both functional and experiential aspects.

'Blue Banana'

Today, Milan is known as an industrial powerhouse and its finance, fashion, and design sectors. Milan is one of Italy's main economic centers and plays a key role in Europe. It's part of the "Blue Banana," a region stretching across Europe that connects some of the most industrialized and prosperous areas. Milan, located in northern Italy, has always been important due to its central location, making it a natural crossroads for trade and transport. Historically, Milan grew thanks to its fertile land in the Po Valley, which supported agriculture and made it a key area for farming. In addition, its easy access to raw materials, such as coal, iron or timber from nearby regions contributed significantly to its development.

Over time, Milan shifted from being primarily agricultural to becoming a major industrial hub. As the center of Italy's textile industry in the 19th century, it eventually expanded to include technology, fashion, design, and many other industries. Its infrastructure, including railways and roads, made it easy for Milan to connect to other major European cities and helped fuel its economic growth.

Culture Lens

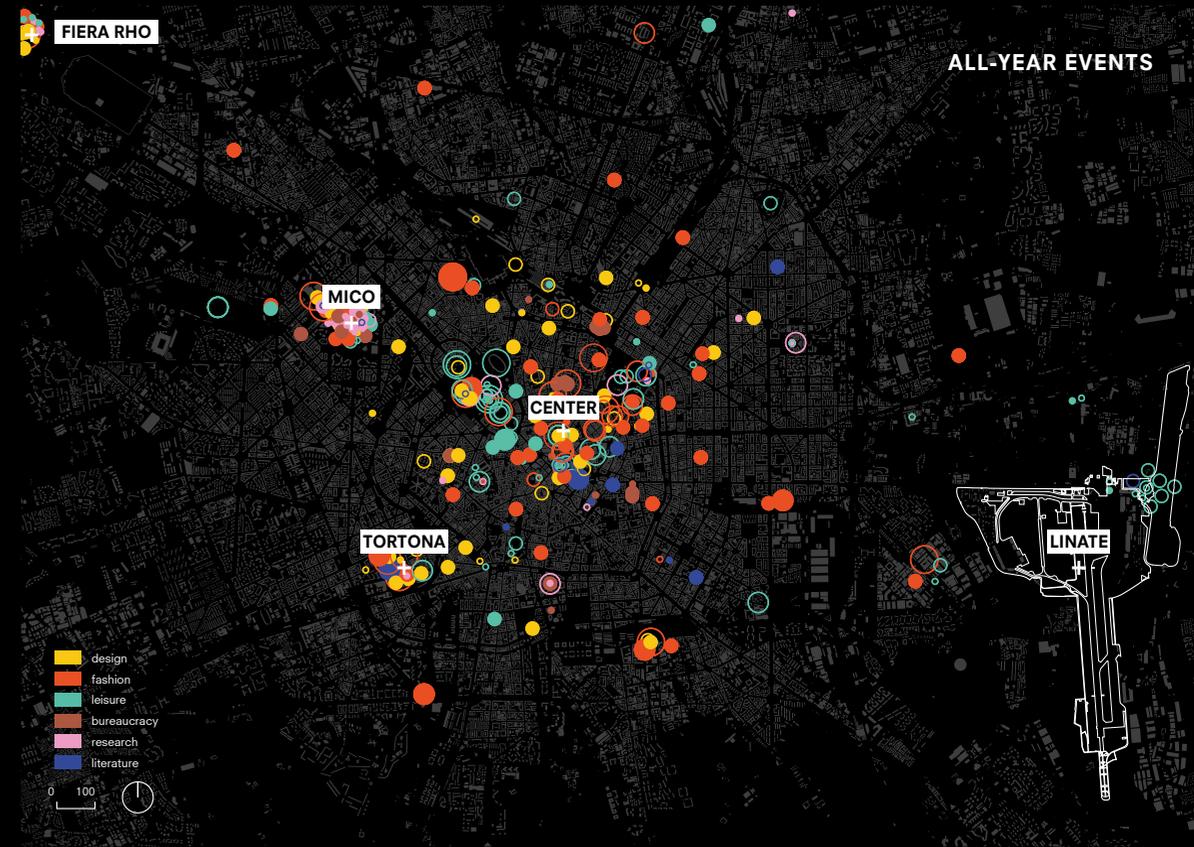MILAN FASHION WEEK

SCALA'S OPERA SEASON

DESIGN WEEK

Milan 'City of Temporality'

Milan's strong industrial base laid the foundation for a vibrant event culture. As the city developed into an economic and industrial powerhouse, it attracted creative talent and global attention, which led to the rise of major cultural events. Milan is a city of temporality, constantly changing from week to week with events like Milan Fashion Week, Milan Design Week, and the opera seasons. These events transform the city, giving it a different character at different times of the year. During these weeks, Milan becomes a hub of creativity, innovation, and culture, drawing designers, artists, and performers from around the world.
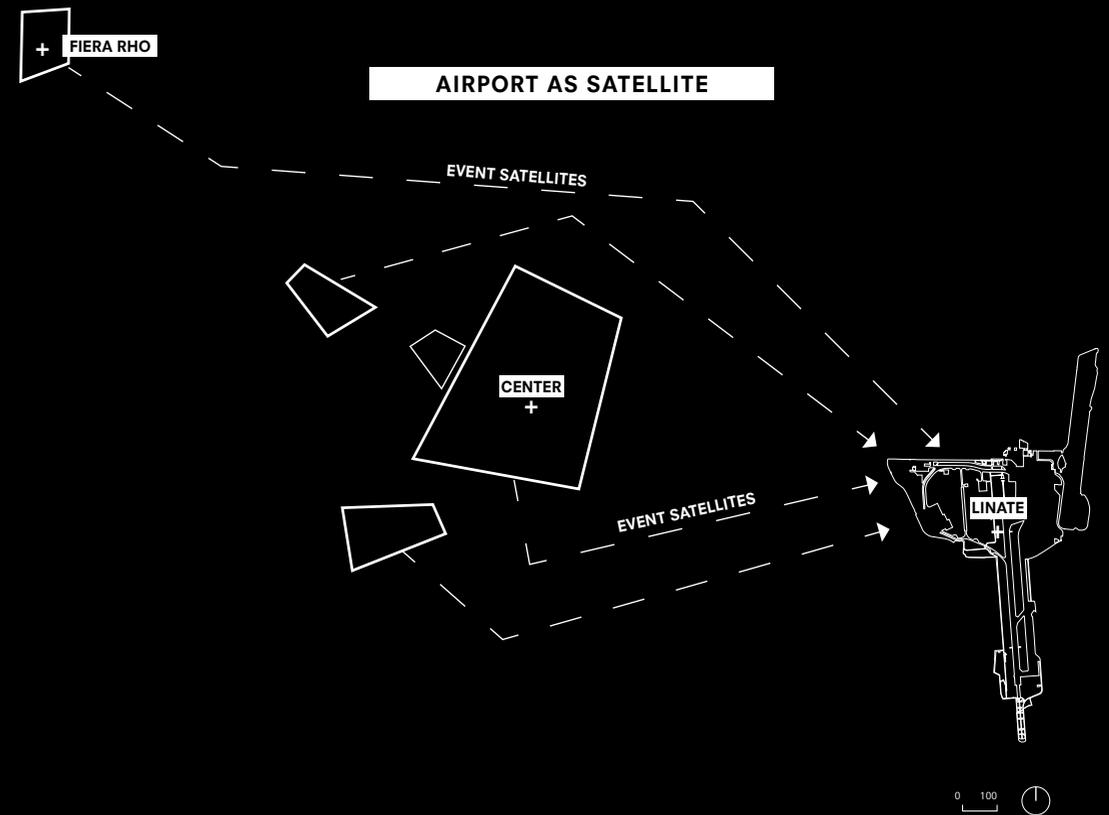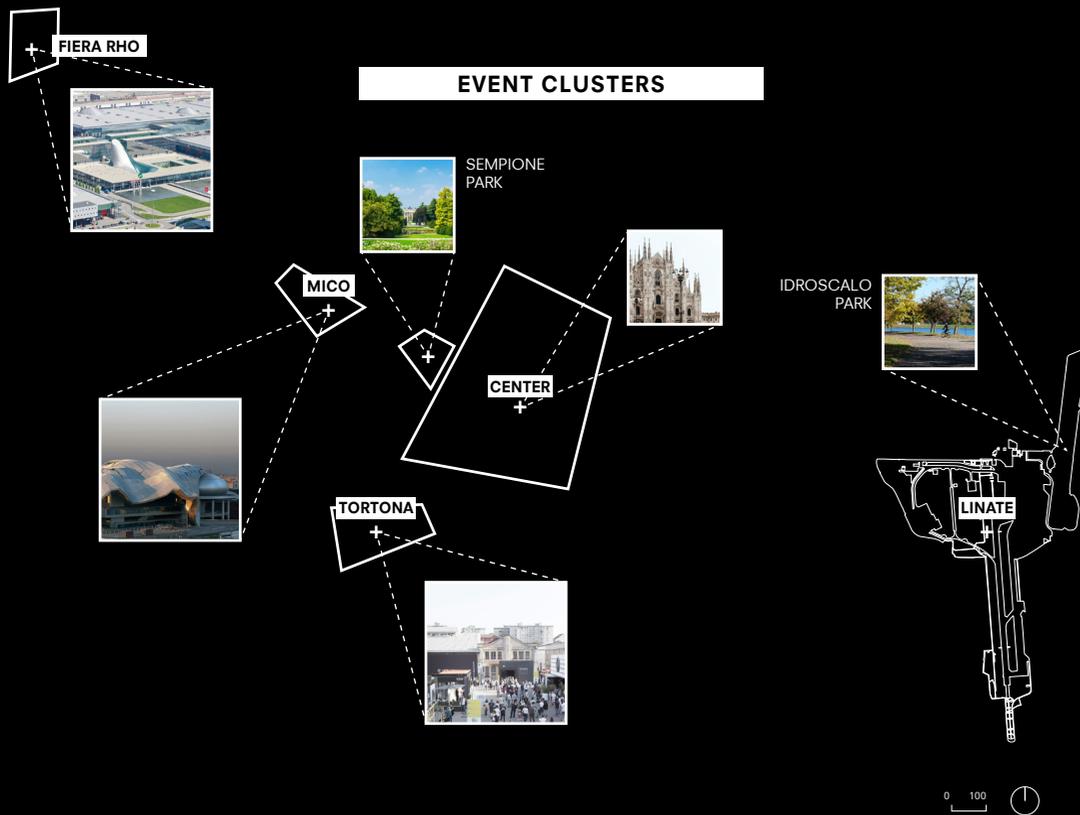
The city adapts to the needs and energy of each event, making it a dynamic, ever-evolving place. Milan's identity as a "city of events" reflects this constant transformation, offering something new to experience with each passing week.

FIERA RHO

ALL-YEAR EVENTS

MICO

CENTER

TORTONA

LINATE

design
fashion
leisure
bureaucracy
research
literature

0   100

Milan and Events

Milan hosts events throughout the year, spread across various key locations such as the city center, Fiera Rho, Mico, and the Tortona district. Seasonal events also take place in parks like Sempione and Idroscalo. However, there's not much happening at Linate Airport, with only a few music or sports events at Idroscalo. While Fiera

Rho is accessible from the airport, it's still relatively far. By public transport, the journey takes around 1 hour and 10 minutes. This distance limits attendance mostly to people specifically coming for the event, rather than casual visitors. However, there's potential to make events more visible by positioning the airport as a satellite hub for Milan's events.

EVENT CLUSTERS

FIERA RHO

SEMPIONE PARK

MICO

IDROSCALO PARK

CENTER

LINATE

TORTONA

0 100

AIRPORT AS SATELLITE

FIERA RHO

EVENT SATELLITES

CENTER

EVENT SATELLITES

LINATE

0 100

Culture Lens
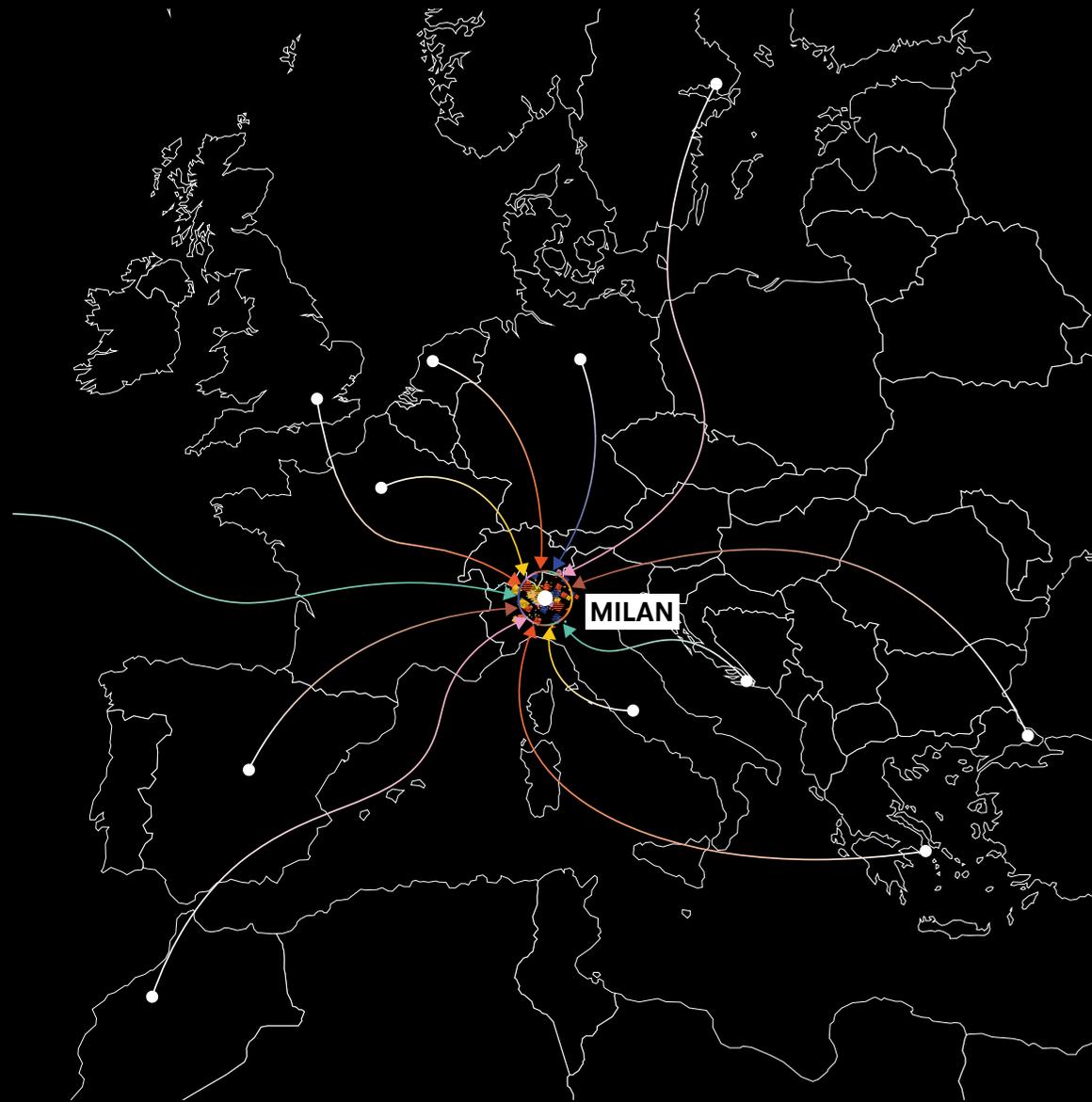
Visibility of Events

The airport typology offers Milan a unique opportunity to boost visibility for its events. The airport's prime location, accessibility, speed, and comfort make it an ideal venue to increase the appeal of hosted events. With its high volume of daily traffic, the airport can attract larger and more diverse audiences, creating significant visibility, buzz, and international attention for Milan's events.

Milan Catalyst

Milan's event culture also presents an opportunity to enhance the airport experience. It has the potential to create a unique environment where travelers can engage with Milan's culture, events, and energy, making the airport more than just a transit building. It would serve as a catalyst to Milan and would become a destination on its own. Passengers increasingly prioritize experience, something that is also visible in social media. Positioning the airport as a destination in itself, would thus attract many new visitors.
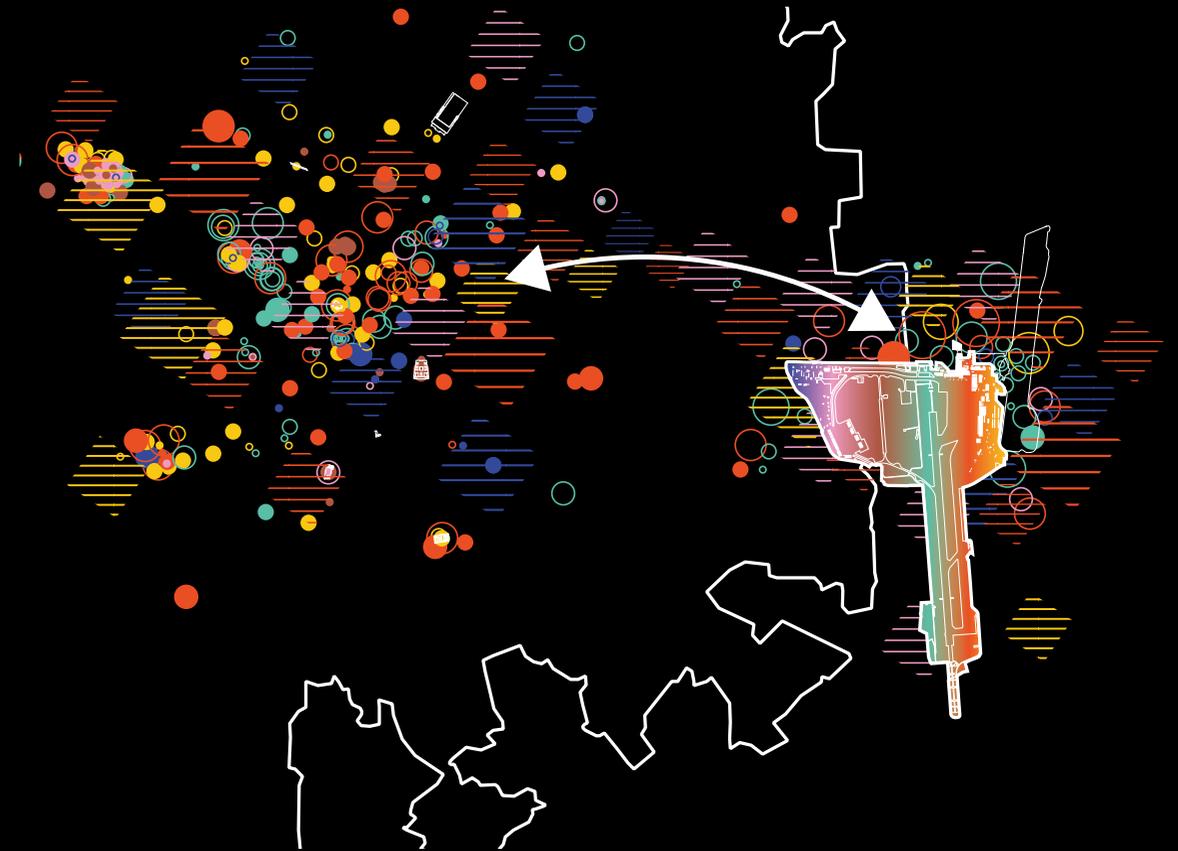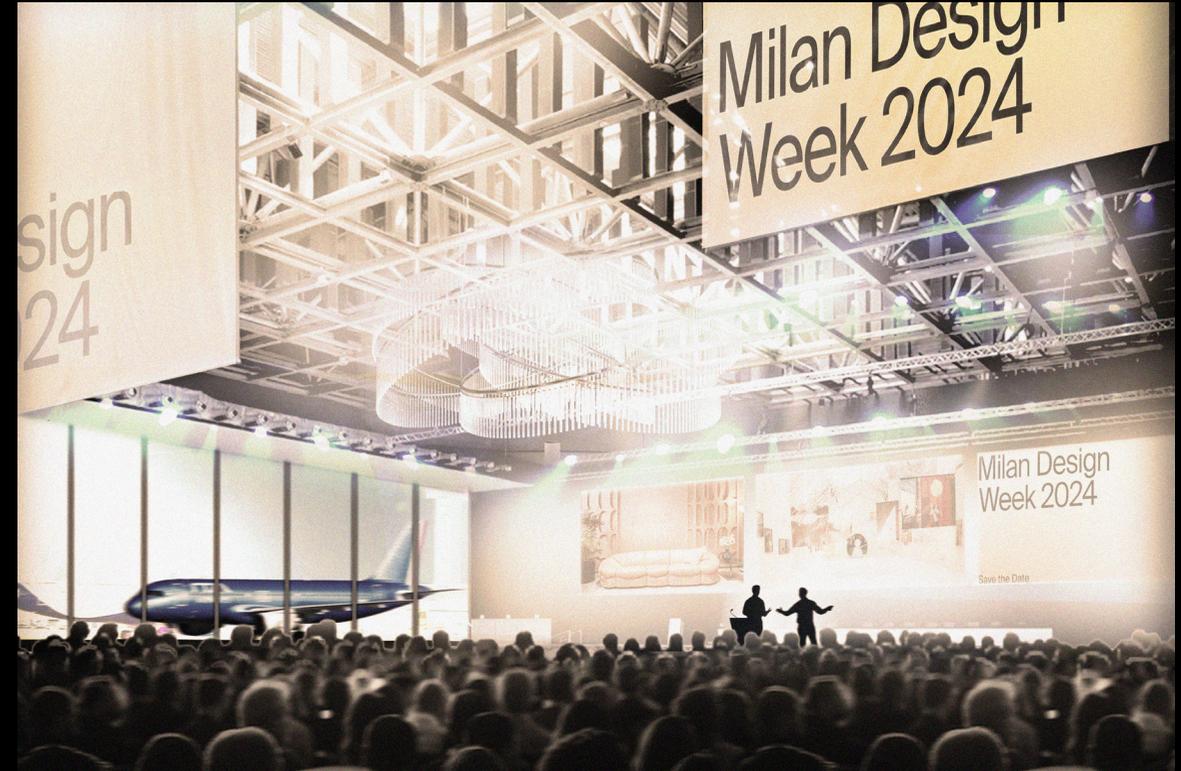
**CAN WE CHALLENGE THE
'NON-PLACE' AIRPORT DESIGN?**

**'HOW CAN AIRPORTS BE REIMAGINED AS
DESTINATIONS BEYOND TRAVEL TO CREATE
ENGAGING EVENT-BASED EXPERIENCES?'**

DESIGN BRIEF

02

Milan Linate Airport is a prime example of a city airport located just eight kilometers from the city center, it is closely woven into the urban fabric of Milan. Unlike the region's more remote airports, such as Malpensa and Bergamo Orio al Serio, which serve primarily international or low-cost traffic, Linate is focused on domestic and short-haul European routes. This gives it a particular identity rooted in immediacy and accessibility, serving business travelers, local commuters, and residents who rely on quick and efficient connections to and from the city. seeking quick access to Milan's central districts.

Its close proximity to Milan's core transforms Linate from a mere point of transit into a strategic urban asset. The airport influences not only the mobility network of the city but also its spatial, social, and environmental dynamics. Issues like noise pollution, air quality, and traffic congestion are more acutely felt here due to the airport's embedded position within the metropolitan context. Yet, this embeddedness also presents unique opportunities inviting innovative thinking about how airports can function as integrated parts of urban life rather than isolated, infrastructural monoliths.

As such, Linate challenges traditional notions of airport design. It invites a reimagining of the airport as a civic space an interface where mobility infrastructure intersects with public life, sustainability, and architectural identity. Its scale, location, and role make it a fertile testing ground for exploring new models of airport urbanism, where the boundaries between city and terminal begin to blur, and the airport becomes an active part of the urban experience.

Site

Milan Linate Airport

MILAN

MILAN

MALPENSA

BERGAMO
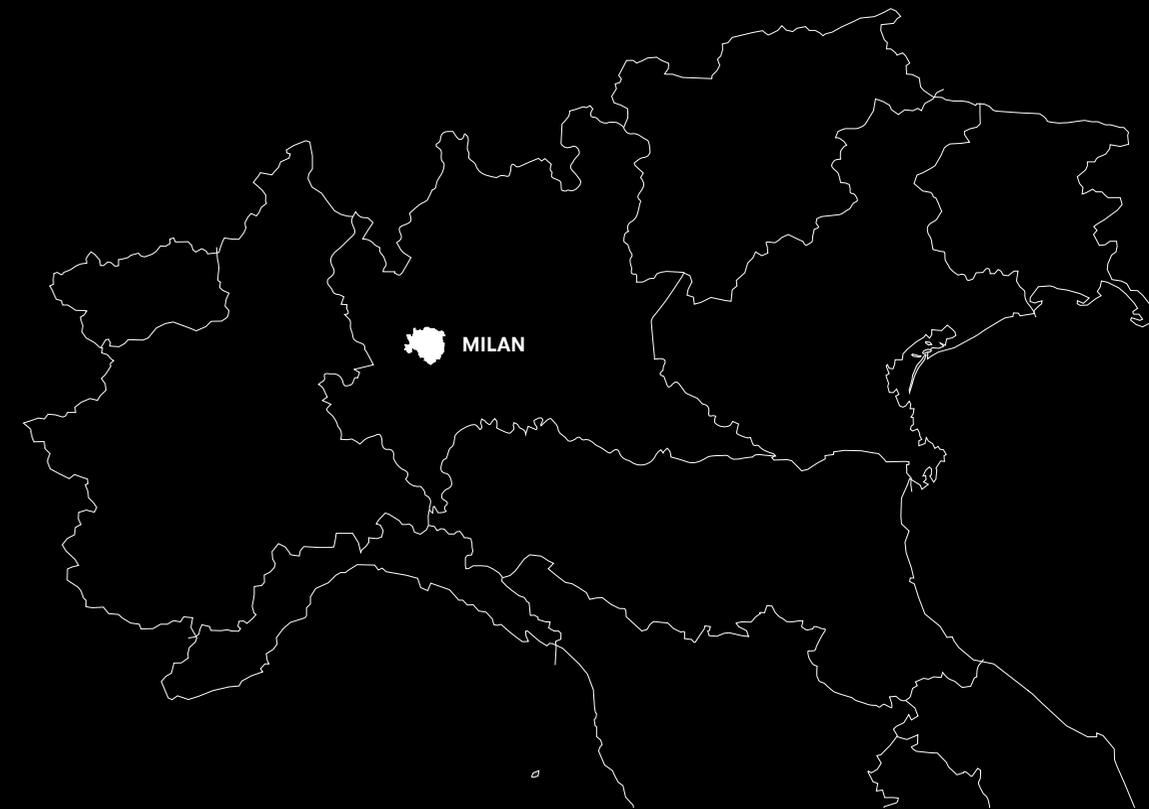
LINATE

Site

Linate Airport has a rich history that reflects the evolution of aviation in Milan. Its origins trace back to 1910, with the establishment of Taliedo Airport. Taliedo was one of Italy's first airfields, primarily serving military aviation and early aviation industries during the pioneering years of flight. It marked the beginning of Milan's role in aviation innovation.

By the 1930s, the growing demand for air traffic and the need for additional capacity led to the development of Idroscalo, an artificial basin built in 1930 to accommodate waterplanes. It was designed as an expansion of Milan's aviation infrastructure, focusing on seaplane operations, which were a significant part of air transport at the time.

In 1937, the decision was made to expand Linate as a land-based airport, creating a more versatile hub to handle increasing air traffic. The new facilities established Linate as a critical node in northern Italy's aviation network, supporting both domestic and international flights.

Post-war recovery brought significant renovations to Linate in the 1960s, modernizing the airport to meet the growing demands of commercial aviation. This period saw the introduction of updated terminals and infrastructure to handle the rising number of passengers and larger aircraft.

In 1993, renowned architect Aldo Rossi was commissioned to redesign parts of the airport, including its façade and terminal spaces. Rossi's intervention brought a distinct architectural identity to Linate, emphasizing functionality while incorporating his characteristic minimalist style.

Most recently, in 2021, the architecture firm One Works undertook extensive renovations to modernize Linate once again. Their updates focused on improving passenger experience with expanded terminal spaces, updated technology, and enhanced design.

Milan Linate Airport Evolution

TALIEDO AIRPORT, 1910

IDROSCALO EXPANSION, 1930
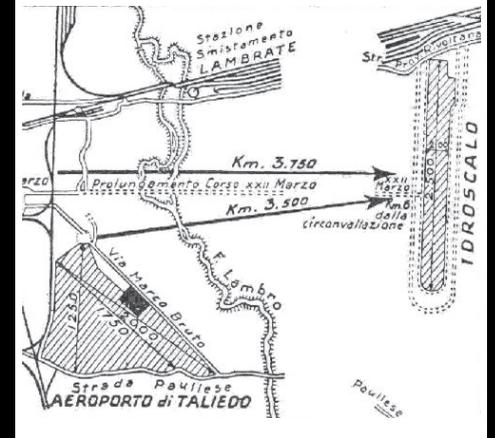
LINATE AIRPORT, 1937

POST-WAR EXPANSION, 1960

ALDO ROSSI INTERVENTION, 1993

ONEWORKS INTERVENTION, 2021

Site

IDROSCALO

COMMERCIAL AVIATION
PASSENGER TERMINAL

military
airforce base

additional airport services:
customs, police, post cargo, sea offices

BUSINESS AVIATION
PRIVATE TERMINAL

traffic control
tower & radar

0   500

Airport Parks & Functional Areas
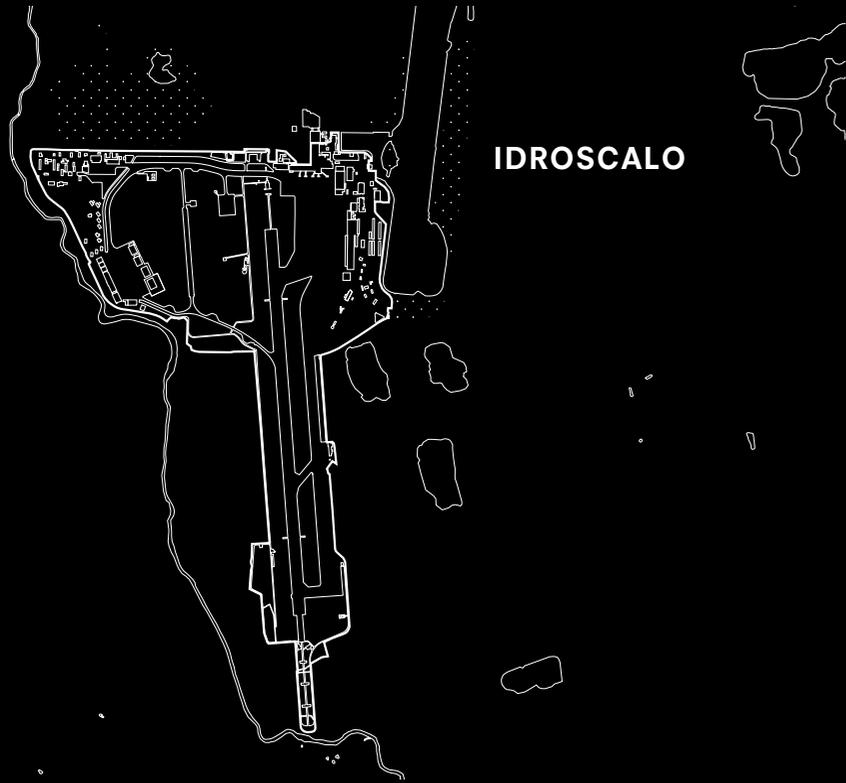
Urban Scale Site

Linate Airport spans an area of approximately 3.5 million square meters, making it compact yet highly functional as a city airpor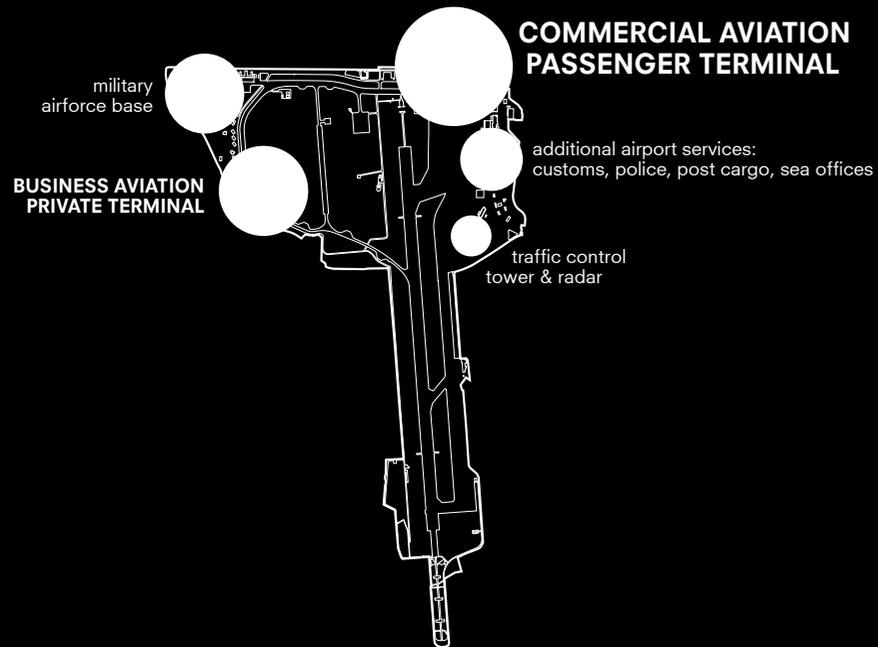t. It features 23 gates and 41 aircraft stands, with 5 jet bridges facilitating efficient boarding and disembarking for passengers.

The airport is equipped with both a commercial terminal and a business terminal. The commercial terminal handles the bulk of passenger traffic, while the business terminal offers dedicated services for private and corporate aviation. Linate also has a service area that supports the operational aspects of the airport, including maintenance, ground handling, and logistical facilities.

Linate Airport is positioned between two green spaces: Idroscalo Park and Forlanini Park. Although not ideally connected, proximity to nature gives the airport a distinctive potential rarely found in urban airports.

The airport is enveloped by Milan's broader transport network, both rail and road systems. The newly inaugurated M4 metro line connects Linate directly to Milan's city center, including the iconic Duomo, in just about 20 minutes, providing fast and convenient access for travelers. This efficient integration makes Linate not just an airport but a key part of Milan's urban mobility.

Milano
Centrale

Bergamo
1h

Duomo
di Milano
20min
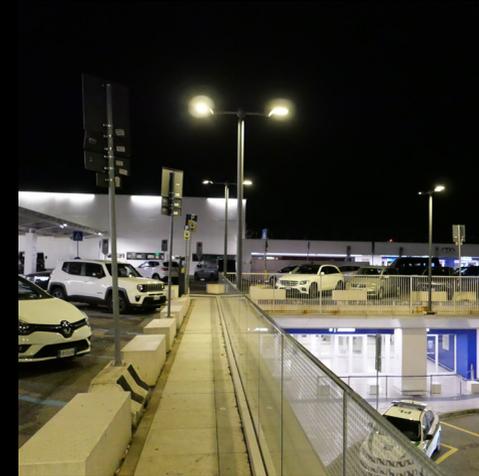
M4 Metro

Bologna
1h

0   500

Rail infrastructure

Site

The main entrance and acces to the airport, known as the airport curb, handles most passenger traffic. The airport is bordered by Idroscalo and Forlanini Parks, which offer significant recreational opportunities. However, the lack of direct connections and accessibility between the airport and these parks means their potential remains largely untapped. Whitin the near vicinity there are different functions: two hotels offering a combined 302 rooms, and nearby amusement and sports complex buildings.

The airport's facilities include five parking areas with a total of 6,445 spaces covering 83,000 square meters. The service area encompasses logistics, warehouses, cargo facilities, offices, customs, and hangars, totaling approximately 40,000 square meters. Additionally, the business terminal features 11 hangars and a 3,250 square meter terminal.

Ambition aims consolidate these dispersed functions into a centralized, compact building that connects the city, the airport, and the surrounding parks. This development seeks to create a public space, transforming the area into a so called 'Linate Airport District (LAD)', a dynamic hub that integrates community life, travel, and experience. The design site includes about 350,000 square meters and a maximum height of 60 meters due to the airport's obstacle limitation height.

Airport Parks

Site

legend:
- passenger terminal
- parking
- residential
- office
- hangar
- hotel
- military
- airport handling
- industrial
- commercial
- amusement

Airport Functional Areas

- passenger terminal
- parking

PARKING
P1 = 1375X - 17.900M²
P2 = 1530X - 19.900M²
P3 = 350X - 4.600M²
P4 = 1500X - 19.500M²
P5 = 1580X - 20.500M²
TAXI = 110X - 1400M²
TOT = 6445 X - 83.800M²

P4
P3
P2
P1
P5
P1 & P2
T
C
TAXI

---

legend:
- passenger terminal
- parking
- residential
- office
- hangar
- hotel
- military
- airport handling
- industrial
- commercial
- amusement

MILITARY SPORTS COMPLEX
TENNIS = 6X ~1600 M²
POOL = 1X ~400M²
MAIN FACILITY = ~1500M²
ADDITIONAL = ~800M²
TOT = ~4300 M²

SPORTS PARK
TENNIS = 2X ~500 M²
RUGBY = 1X ~7000 M²
GYM = ~400M²
ADDITIONAL = ~800M²
TOT = ~8700 M²

CIRCOLO MUSIC STAGE
OUTDOOR SPACE = ~1000 M²
BACKSTAGE = 400 M²
STAGE = 300 M²
ADDITIONAL = 1500 M²
TOT = ~3200 M²

SPORTS COMPLEX
TENNIS = 3X ~800 M²
FOOTBALL = 1X ~400 M²
POOLS = 1X ~400M²
TOT = ~1600 M²

MOXY AIRPORT HOTEL
200 X ROOMS = ~5000 M²
COMMON SPACES = ~2500M²
TOT = ~7500 M²

AIR HOTEL LINATE
102 X ROOMS = ~2000 M²
COMMON SPACES = ~800M²
TOT = ~2800 M²

- passenger terminal
- parking
- residential
- office
- hangar
- hotel
- military
- airport handling
- industrial
- commercial
- amusement

0   100

- passenger terminal
- parking
- residential
- office
- hangar
- hotel
- military
- airport handling
- industrial
- commercial
- amusement

AIRPORT SERVICE AREA

BUSINESS TERMINAL

MAIN HANGAR = 8000 M²
CLEARANCE OFFICE = 1000 M²
POST HANDLING OFFICE = 2000 M²
LOGISTICS HANDLING = 4000 M²
CARGO HANDLING = 8000 M²
WAREHOUSE STORAGE = 12000 M²
FINANCE POLICE = 1000 M²
CITES OFFICE = 500 M²

11 X HANGARS = 28500 M²
APRON = 80,000 M²
TERMINAL = 1250 M²

0   100

Site Conclusion

The ambitions for Linate Airport reimagine it as more than a transportation facility: it becomes a compact gateway to Milan, a catalyst for urban activity, and a connected public hub embedded within the city's fabric. As a gateway, Linate stands as a landmark at the threshold of the metropolis, offering a first impression that embodies Milan's identity through architecture, landscape, and user experience. Its proximity to the city center enables efficient, swift access for both everyday travelers and international visitors, reinforcing its role as a strategic point of entry. As a catalyst, the airport is envisioned as a flexible and responsive infrastructure that can absorb fluctuations in flow and scale, particularly during major events like the 2026 Winter Olympics. It functions as a Milan event satellite, activating its surroundings, stimulating economic and social energy, and promoting new models of airport-driven urban development. As a connected public hub, Linate aims to blur the boundary between infrastructure and civic space. Through multimodal transportation links, accessible public areas, and integration with parks and adjacent neighborhoods, the airport supports multi-sided permeability and invites both travelers and residents to engage with the site. These ambitions collectively redefine Linate as a new kind of airport district: compact, connected, and civic, where infrastructure, urban life, and public space converge.
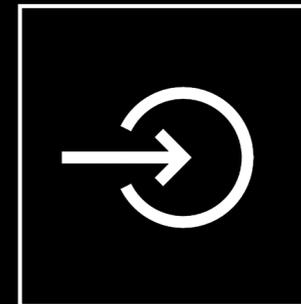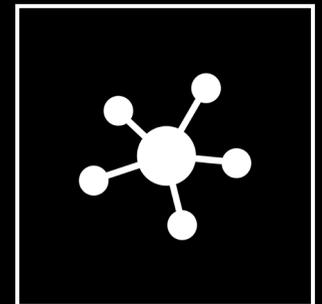

AIRPORT AS GATEWAY

LANDMARK

LINATE AIRPORT DISTRICT

CITY SATELLITE

COMPACT
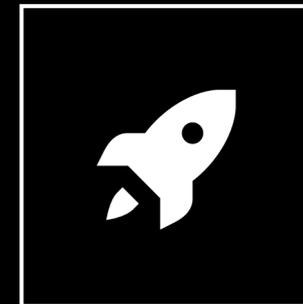
AIRPORT AS CATALYST

COMMUNITY INTERACTION

ADAPTIVE INFRASTRUCTURE

ECONOMIC DRIVER

SWIFT ACCES

AIRPORT AS CONNECTED PUBLIC HUB

CITY RECONNECTION

PUBLIC PLAZA

MULTI-SIDED ACCESS

PARKS & GREEN SPACES

Client

Who's Intrested?

The airport's vision aligns with the needs and goals of various clients and stakeholders. SEA Group is the airport operator; the municipality of Milan and the F2i group are investors; commercial airlines are the companies making travel possible; and passengers and non-passengers are the users. There are also different stakeholders in the event and experience sector. Event infrastructure can be operated by Fiera Milano, which holds a significant position in Milan's event industry. Event organizers are the clients wanting to hold events at the airport, and lastly, the performers or artists.

0,2 % OTHER

F2i 45 %

54,8 % MUNICIPALITY OF MILAN

SEA Milan Airports

AIRPORT OPERATOR

PASSENGERS

NON-PASSENGERS

Comune di Milano

MILAN MUNICIPALITY

F2i Fondi italiani per le infrastrutture SGR

SEA GROUP INVESTOR

ITA AIRWAYS

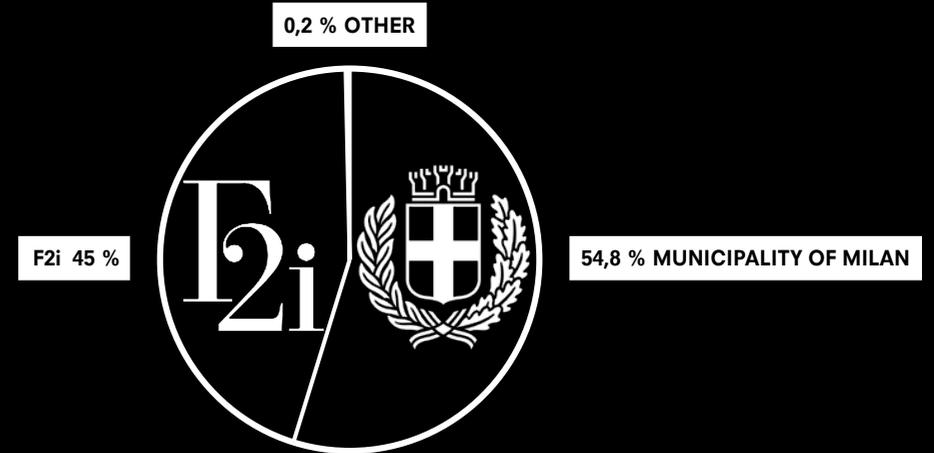COMMERCIAL AIRLINES

FIERA MILANO

EVENT INFRASTRUCTURE

Camera Nazionale della Moda Italiana

EVENT ORGANIZERS

PERFORMERS / ARTISTS

Investors

SEA Group has two main investors: the Municipality of Milan and the Italian Infrastructure Fund. These investors have distinct ambitions, including creating flexible infrastructure to support growth, focusing on public space and local community engagement, and promoting Milan's culture, events, and landmarks. They envision Linate as a key gateway to Milan and aim to develop the Linate Airport District (LAD) into a engaging, integrated space.

SEA Group Ambitions
SEA Group is dedicated to achive different ambitions. Increasing airport capacity is needed to generate more revenue and to be able to manage more aircraft movements and passengers. Smart technology implementation and a user centric design help the airport to achieve more efficiency and better passenger satisfaction. Sustainability goals are important as airports have to comply to regulations.

Growth
The estimation is for sustained growth and a capacity requirement of 15 million passengers, 5 million more than in 2025. This capacity will allow the airport to be more flexible in the future. The ambition to attract more international passengers will include new dimensional requirements. Larger airplanes will have larger dimensions to be taken into consideration.

Capacity
The more the city grows, the more events are hosted, such as the upcoming 2026 Olympics. The more events, the more people: event visitors, commercial aviation, business aviation, and international attention. Thus, more people means more capacity is needed. If Linate wants to keep up, the airport needs increased capacity to achieve higher revenue.

Future of Security
Linate Airport could implement smart technologies like 30-second customs with AI biometric recognition for quick identity checks and security. AI body scanners would improve security by detecting threats without passengers needing to remove items. Biometric recognition would speed up check-in, security, and faceboarding, allowing passengers to board using facial recognition for a seamless, contactless experience.
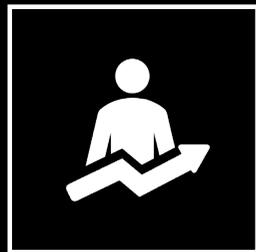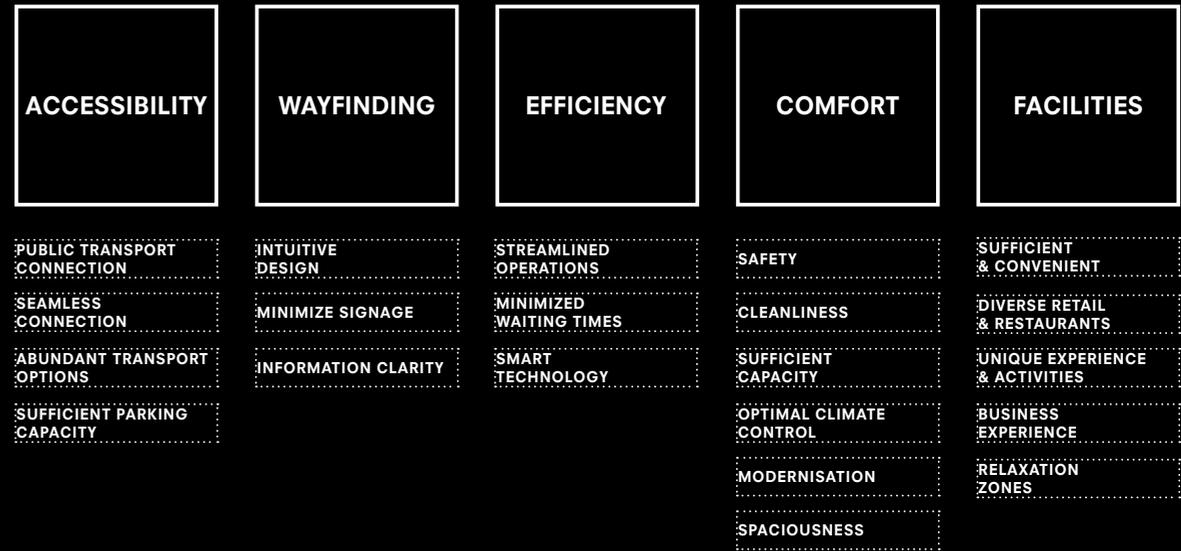
| INCREASE CAPACITY | SMART TECHNOLOGY | USER CENTRIC DESIGN | SUSTAINABILITY GOALS |

Client

ACCESSIBILITY	WAYFINDING	EFFICIENCY	COMFORT	FACILITIES
PUBLIC TRANSPORT CONNECTION	INTUITIVE DESIGN	STREAMLINED OPERATIONS	SAFETY	SUFFICIENT & CONVENIENT
SEAMLESS CONNECTION	MINIMIZE SIGNAGE	MINIMIZED WAITING TIMES	CLEANLINESS	DIVERSE RETAIL & RESTAURANTS
ABUNDANT TRANSPORT OPTIONS	INFORMATION CLARITY	SMART TECHNOLOGY	SUFFICIENT CAPACITY	UNIQUE EXPERIENCE & ACTIVITIES
SUFFICIENT PARKING CAPACITY			OPTIMAL CLIMATE CONTROL	BUSINESS EXPERIENCE
			MODERNISATION	RELAXATION ZONES
			SPACIOUSNESS	

Airport experience
The airport operator has the ambition to create a user centric design. Therefore it aims to improve the experience for the targeted user groups. This design is focussed on different topics: accessibility, wayfinding, efficiency, comfort and facilities. Essentially providing for a seamless, intuitive, comfortable and exciting experience.
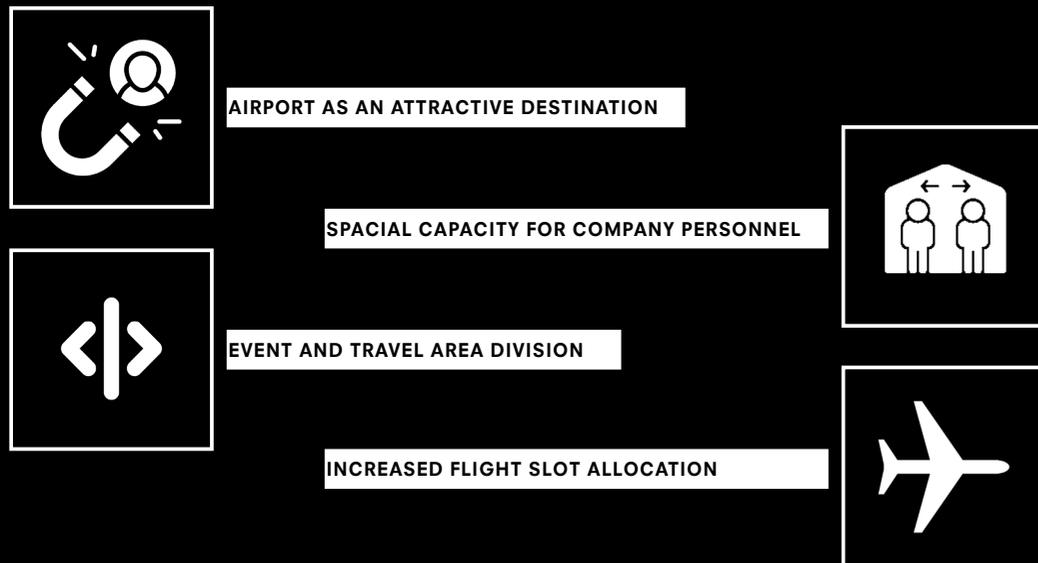
Sustainable Design
Linate's sustainable ambition focuses on reducing its environmental impact through energy-efficient infrastructure, sustainable building materials, and renewable energy sources. It aims to reduce carbon emissions, improve waste management, and promote eco-friendly transportation options, ensuring a greener, more sustainable airport for the future.
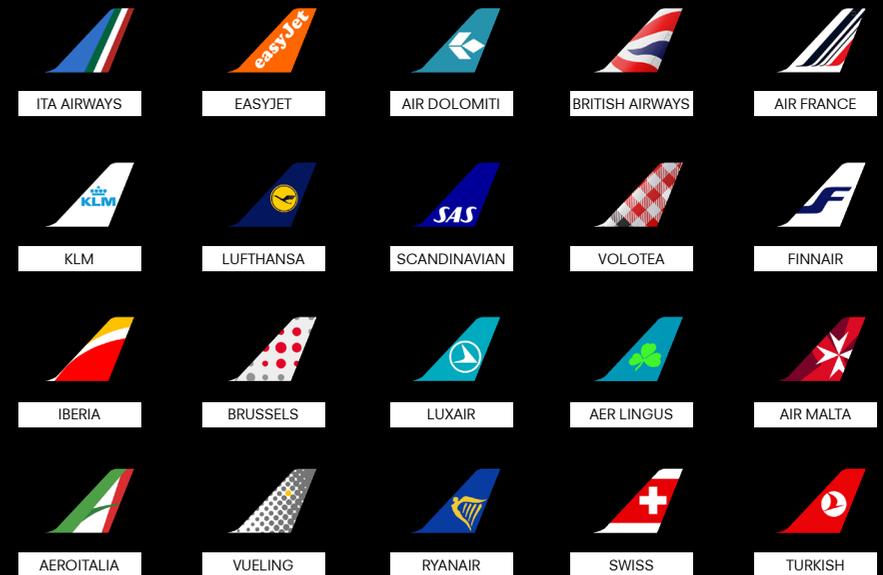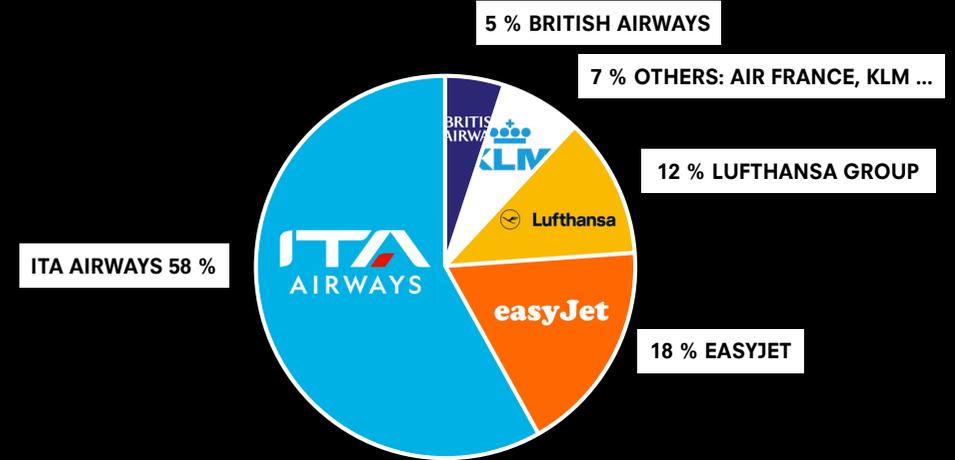
Targeted Users
The targeted users are passengers, business and commercial passengers. On the other side are non-passengers, locals. Both passengers and non-passengers can become event attendees or even ticketed event attendees when entering the airport's after security area for events.

Passengers using Milan are currently most Leisure travellers making up for 54%, while also a considerable amount of Business travellers make use of the airport 32%.

Airline's at Linate

Milan Linate Airport is primarily served by commercial airlines, including ITA Airways, KLM, EasyJet, and Lufthansa, with ITA Airways holding the largest market share. These airlines focus on European destinations and have distinct ambitions for the airport. They envision Linate as an attractive destination, with spatial capacity for airline personnel, clear divisions for event and travel areas, and increased flight slot allocations to improve operations and

AIRPORT AS AN ATTRACTIVE DESTINATION

SPACIAL CAPACITY FOR COMPANY PERSONNEL

EVENT AND TRAVEL AREA DIVISION

INCREASED FLIGHT SLOT ALLOCATION

5 % BRITISH AIRWAYS

7 % OTHERS: AIR FRANCE, KLM ...

12 % LUFTHANSA GROUP

ITA AIRWAYS 58 %

18 % EASYJET

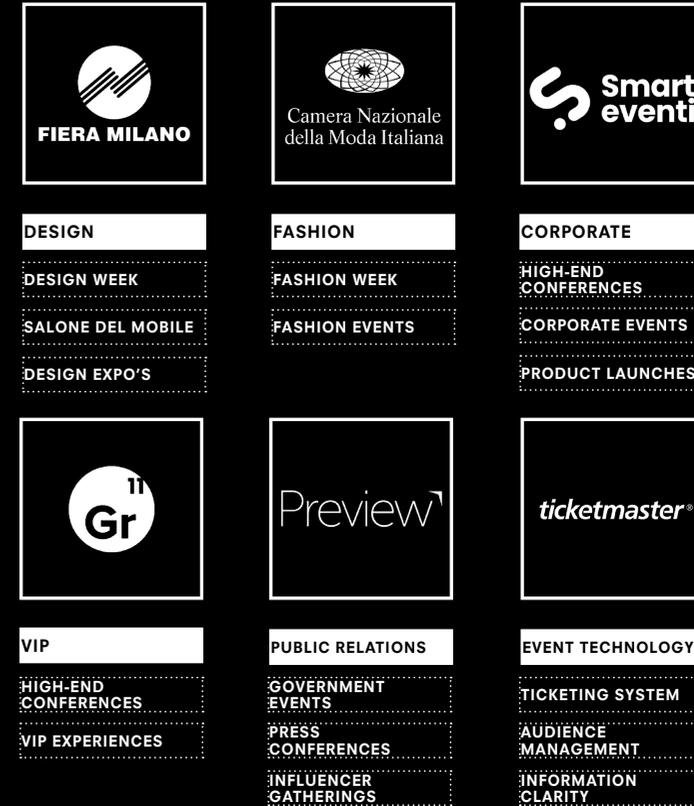| ITA AIRWAYS	EASYJET	AIR DOLOMITI	BRITISH AIRWAYS	AIR FRANCE
KLM	LUFTHANSA	SCANDINAVIAN	VOLOTEA	FINNAIR
IBERIA	BRUSSELS	LUXAIR	AER LINGUS	AIR MALTA
AEROITALIA	VUELING	RYANAIR	SWISS	TURKISH

Fiera Milano

Fiera Milano is the most important event stakeholder in Milan, managing the city's largest venues, such as Fiera Rho and MiCo. With numerous events hosted annually, Fiera Milano provides critical infrastructure and logistical support. It plays a key role in organizing events and will collaborate closely with Linate Airport to manage logistics and handling, ensuring seamless connections between the airport and event spaces. This partnership will enhance Milan's ability to host large-scale events efficiently.

Event Organizers

Event holders like Fiera Milano (Design Week, Salone del Mobile), Camera Nazionale della Moda Italiana (Fashion Week), Smart Eventi (high-end corporate events), GR11 (VIP experiences), and Preview (government events, conferences) will be key stakeholders at Milan Linate. Ticketmaster will manage ticketing, audience engagement, and event technology. These stakeholders will collaborate to enhance Milan's status as a leading destination for international events. Additionally these event organizers will work togheter with brands that want to hold the events. Brands such as for fashion or design.

FIERA MILANO

DESIGN
DESIGN WEEK
SALONE DEL MOBILE
DESIGN EXPO'S

Camera Nazionale della Moda Italiana

FASHION
FASHION WEEK
FASHION EVENTS

Smart eventi

CORPORATE
HIGH-END CONFERENCES
CORPORATE EVENTS
PRODUCT LAUNCHES

Gr 11

VIP
HIGH-END CONFERENCES
VIP EXPERIENCES

Preview

PUBLIC RELATIONS
GOVERNMENT EVENTS
PRESS CONFERENCES
INFLUENCER GATHERINGS

ticketmaster

EVENT TECHNOLOGY
TICKETING SYSTEM
AUDIENCE MANAGEMENT
INFORMATION CLARITY

Cassina · Molteni&C · Poltrona Frau · Fritz Hansen · HermanMiller
B&B ITALIA · Kartell · vitra. · Minotti · FLOS
Tom Dixon. · lualdi · rochebobois · zanotta · ligne roset
FENDI · PRADA · GIORGIO ARMANI · BALENCIAGA · VALENTINO
LANVIN · CHANEL · VERSACE · LOUIS VUITTON · HERMÈS PARIS
GUCCI · D&G · Loro Piana · Dior · GIVENCHY
BALMAIN PARIS · Rick Owens · SAINT LAURENT PARIS · ALEXANDER MQUEEN · BURBERRY

Client

Event Client Ambitions

Different event clients at Milan Linate have distinct ambitions for the airport's event infrastructure:

The Event Infrastructure stakeholder prioritizes service and crew spaces, adequate loading zones, unobstructed routing, brand alignment, and independent handling to ensure smooth operations during events, along with sufficient capacity and space.

Event Organizers seek customizable event spaces, a prestigious location, brand visibility, high-end facilities, and easy accessibility, while also desiring the integration of smart technology for an enhanced event experience.

Performers/Artists focus on great acoustics, lighting, art and stage visibility, and ensured safety, with access to backstage areas and confidential routing, aiming for a fast and exclusive experience tailored for high-end performers.

FIERA MILANO

EVENT INFRASTRUCTURE
SERVICE / CREW SPACES
ADEQUATE LOADING ZONE'S
UNOBSTRUCTED ROUTING
BRAND ALIGNMENT
CAPACITY AND SPACE
INDEPENDENT HANDLING

Camera Nazionale della Moda Italiana

EVENT ORGANIZERS
CUSTOMIZABLE EVENT SPACES
PRESTIGIOUS LOCATION
BRAND VISIBILITY
HIGH-END FACILITIES
ACCESSIBILITY
SMART TECHNOLOGY

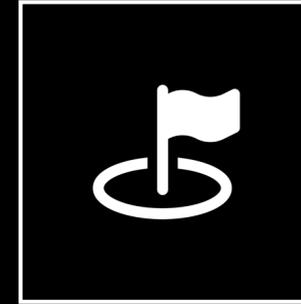| PERFORMERS / ARTISTS |
| --- |
| GREAT ACOUSTICS |
| ART / STAGE VISIBILITY |
| ENSURED SAFETY |
| BACKSTAGE AREAS |
| CONFIDENTIAL ROUTING |
| FAST EXCLUSIVE EXPERIENCE |

AIRPORT AS ATTRACTIVE DESTINATION

EXPERIENCE HUB
PUBLIC SPACE (LAD)
BUSINESS HUB
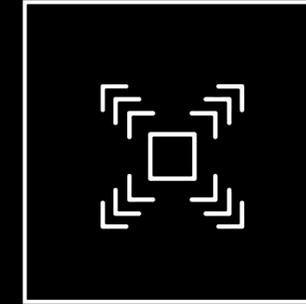
INCREASED AIRPORT CAPACITY

ACCOMODATE GROWTH
MORE INTERNATIONAL
EVENT SPACE CAPACITY
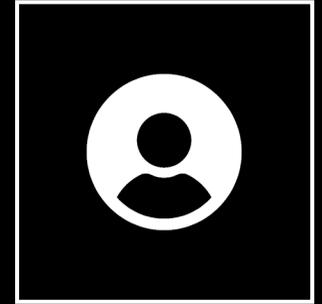
USER-CENTRIC DESIGN

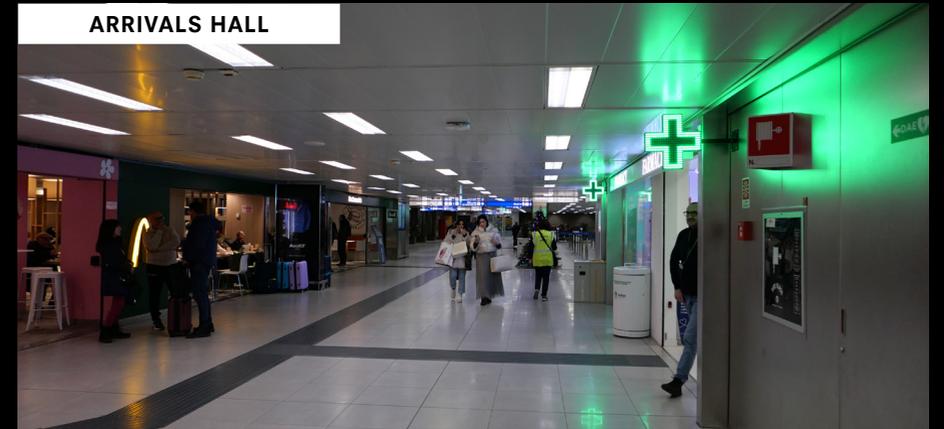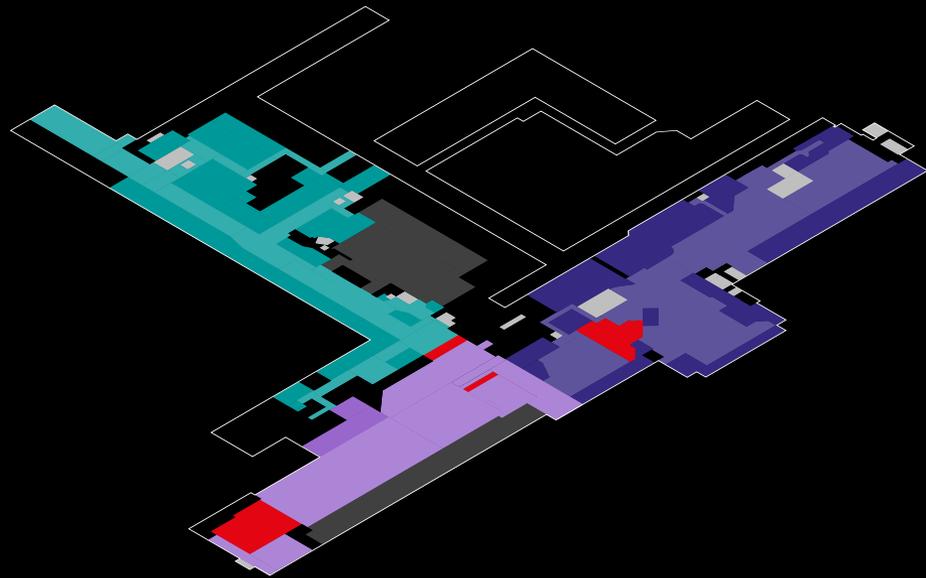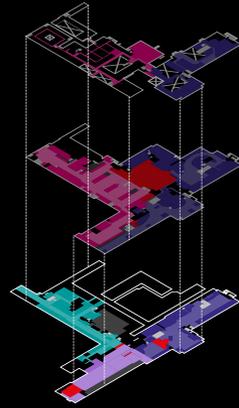| EXPERIENCE PROGRAM |
| --- |
| SMART TECHNOLOGY |
| INTUITIVE DESIGN |

Client Conclusion

The clients' ambitions include Linate Airport as an attractive destination, for travellers and locals. It includes Linate as an 'experience hub' and 'business aviation hub' with public space to enhance the experience. The clients envision an increased airport capacity to accomodate necessary growth. They include to focus on attracting more international passengers. As experience hub, there is need for dedicated or flexible event space capacity. Enhancing the experience is an important ambition, therefore the design has to be user-centric. Holding constantly events at the airport to enhance the airport experience is a must while at the same time continuing aviation operations. The design has to integrate smart technology, be intuitive and enhance user experience.
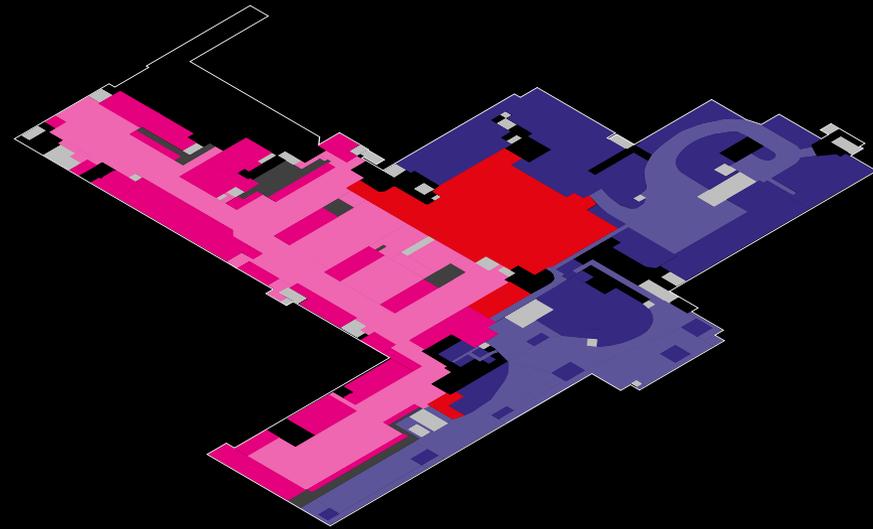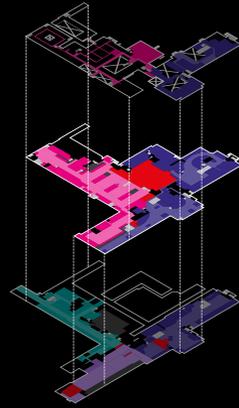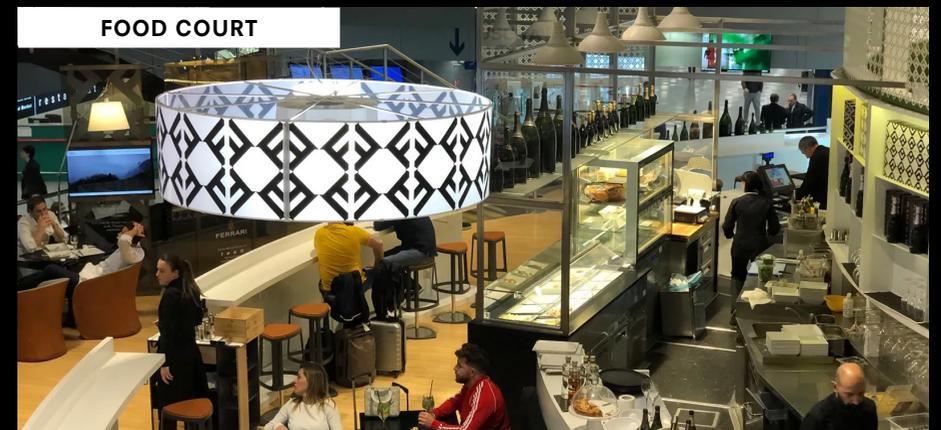
Program

Milan Linate Airport

To form an optimal design brief and before adding new program, it is necessary to understand the current situation of Milan Linate Airport. The passenger terminal consists of pre-security landside and post-security airside areas.

Milan Linate Airport's passenger terminal is composed of several distinct zones distributed across three main floors, each reflecting the airport's architectural and functional evolution over time. This layered development has resulted in noticeable variations in spatial quality and design across different areas of the terminal.

One of the more compact and enclosed areas is the first-floor gate zone. Here, lower ceilings and tighter circulation paths contribute to a sense of congestion, especially during peak travel hours. This stands in contrast to other parts of the terminal, such as the central duty-free area, which has undergone recent modernization. The duty-free section benefits from higher ceilings, more generous spatial planning, and contemporary interior finishes, offering a more open and comfortable experience for travelers.

The most expansive passenger-facing zones are the airside concourse and the aforementioned duty-free retail area. These spaces accommodate high foot traffic and provide a range of amenities and services, from shops and restaurants to seating lounges and boarding gates. Their design supports efficient passenger flow while also enhancing the commercial appeal of the terminal.

However, the terminal's largest single area by volume is not visible to passengers. This is the extensive back-of-house section, which includes storage facilities, staff offices, service corridors, and baggage handling systems. These operational zones are critical to the airport's functionality and occupy a significant portion of the building's footprint.

Overall, the terminal building spans approximately 80,000 square meters. This total encompasses both public and restricted areas across the three levels, reflecting a balance between passenger experience and the logistical demands of airport operations.

Current Milan Linate Airport Program

Program

Milan Linate Ground Floor
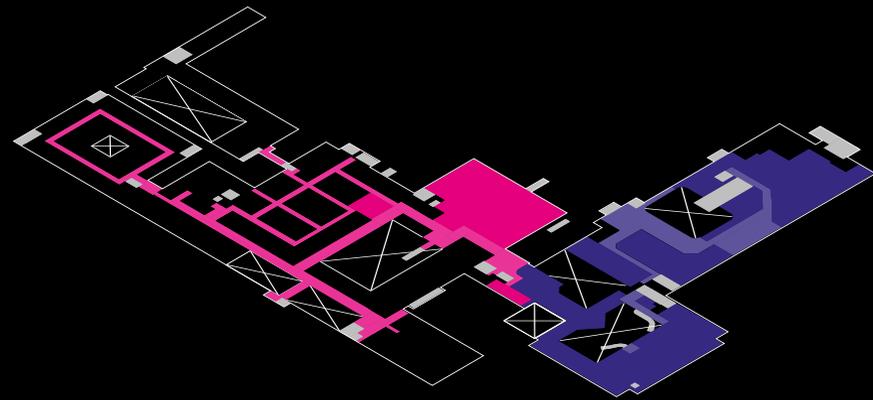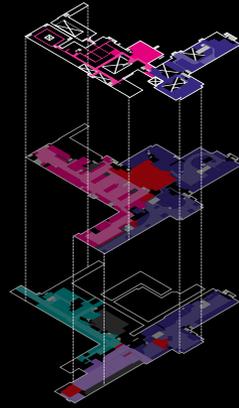

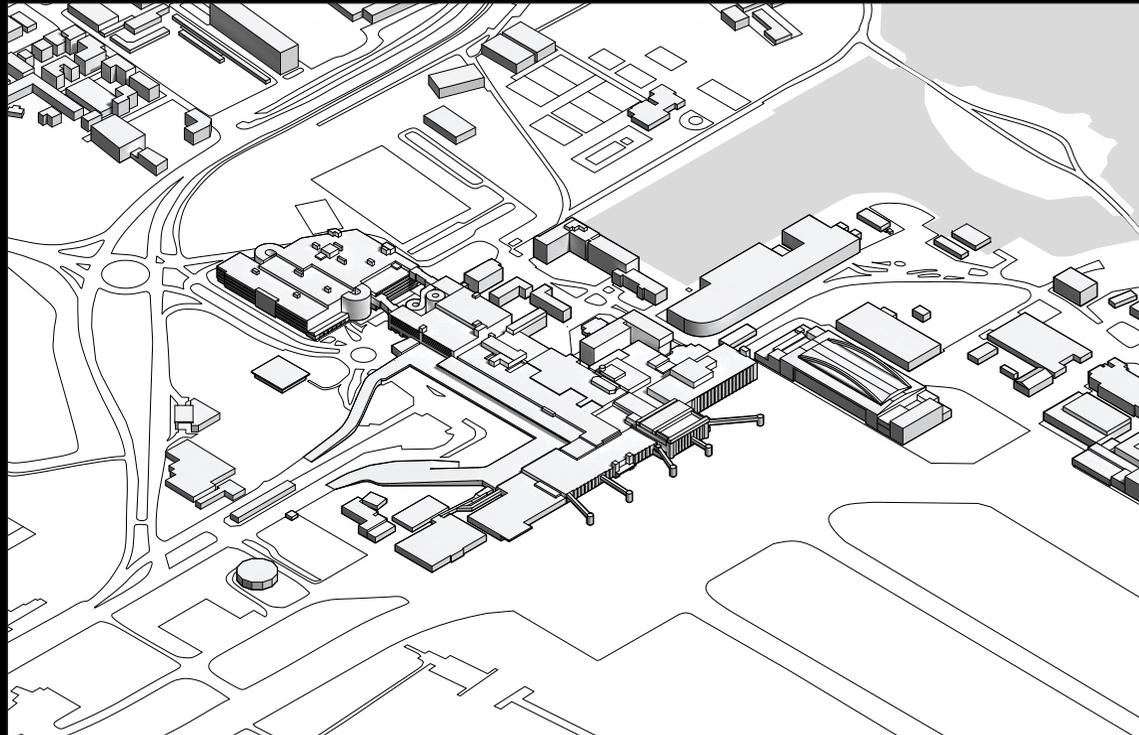| departures	security	concourse	baggage	arrivals	back of house		bag. handling	cores
15%	5%	26%	5%	8%	31%		6%	4%

ARRIVALS HALL

CONCOURSE GATES

BAGGAGE HALL

Program

Milan Linate First Floor

	security			baggage		back of house		cores
15%	5%	26%		5%	8%	31%	6%	4%
departures		concourse			arrivals			bag. handling

DEPARTURES

CUSTOMS

CONCOURSE

Program

Milan Linate Second Floor

OFFICE HALL

LOUNGE

FOOD COURT

	security			baggage		back of house		cores
15%	5%	26%		5%	8%	31%	6%	4%
departures		concourse			arrivals			bag. handling

Program

Milan Linate Isometric

Milan Linate Program Sections

AA′

BB′

Program

Airport Database

To understand what defines an ideal airport, it was necessary to create and analyze a comprehensive benchmark database of airports. This database included a wide variety of airport types, ranging from large international hubs to smaller regional facilities, and encompassing different aviation focuses such as commercial aviation, business aviation, and cargo operations. By incorporating this broad spectrum, the analysis captured the diverse operational and experiential characteristics found across the industry.

The benchmark database proved especially valuable in revealing relationships between several key factors, including airport capacity, terminal passenger flow, the presence and quality of experience-focused activities, and overall passenger satisfaction. The data showed clear patterns indicating that airports with higher passenger volumes required carefully planned spatial organization and service distribution to maintain both comfort and efficiency. Airports that offered a wide range of well-integrated amenities, such as shops, dining areas, lounges, and relaxation spaces, consistently received higher satisfaction ratings. This was particularly evident when such features were located in areas where passengers tend to spend more time, such as departure lounges or the post-security zone.

The analysis also emphasized the importance of balancing operational performance with user experience. High-performing airports were those that managed to integrate efficient systems for functions like baggage handling and security while also creating comfortable, engaging environments for travelers. In contrast, some airports that focused heavily on one aspect at the expense of the other showed limitations in their overall effectiveness. Smaller and business-oriented airports, though less complex, often demonstrated a high degree of spatial flexibility and adaptability. These qualities contributed positively to the user experience, especially in situations where traffic patterns or operational needs changed over time.

Changi Airport (SIN)
Singapore, Singapore / 1981
C O

Hartsfield-Jackson Atlanta International Airport (ATL)
Atlanta, USA / 1926
C O

Dubai International Airport (DXB)
Dubai, UAE / 1960
C O

Incheon International Airport (ICN)
Incheon, South Korea / 2001
C O

London Heathrow Airport (LHR)
London, UK / 1946
C O

Hamad International Airport (DOH)
Doha, Qatar / 2014
C O

Paris Charles de Gaulle Airport (CDG)
Paris, France / 1974
C O

Istanbul Airport (IST)
Istanbul, Turkey / 2018
C O

Amsterdam Airport Schiphol (AMS)
Amsterdam, Netherlands / 1916
C O

Munich Airport (MUC)
Munich, Germany / 1992
C

Hong Kong International Airport (HKG)
Hong Kong, China / 1998
C O

San Francisco International Airport (SFO)
San Francisco, USA / 1927
C O

Zurich Airport (ZRH)
Zurich, Switzerland / 1948
C

Vancouver International Airport (YVR)
Vancouver, Canada / 1931
C

Kansai International Airport (KIX)
Osaka, Japan / 1994
C

Adolfo Suárez Madrid–Barajas Airport (MAD)
Madrid, Spain / 1931
C O

Leonardo da Vinci International Airport (FCO)
Rome, Italy / 1961
C

Helsinki-Vantaa Airport (HEL)
Helsinki, Finland / 1952
C

Copenhagen Airport (CPH)
Copenhagen, Denmark / 1925
C

Oslo Gardermoen Airport (OSL)
Oslo, Norway / 1998
C

Nice Côte d'Azur Airport (NCE)
Nice, France / 1946
C B

Milan Malpensa Airport (MXP)
Milan, Italy / 1960
C O

Milan Linate Airport (LIN)
Milan, Italy / 1937
C B

London City Airport (LCY)
London, UK / 1987
C B

Milan Bergamo Airport (BGY)
Milan, Italy / 1970
C

Rome Ciampino Airport (CIA)
Rome, Italy / 1916
C B

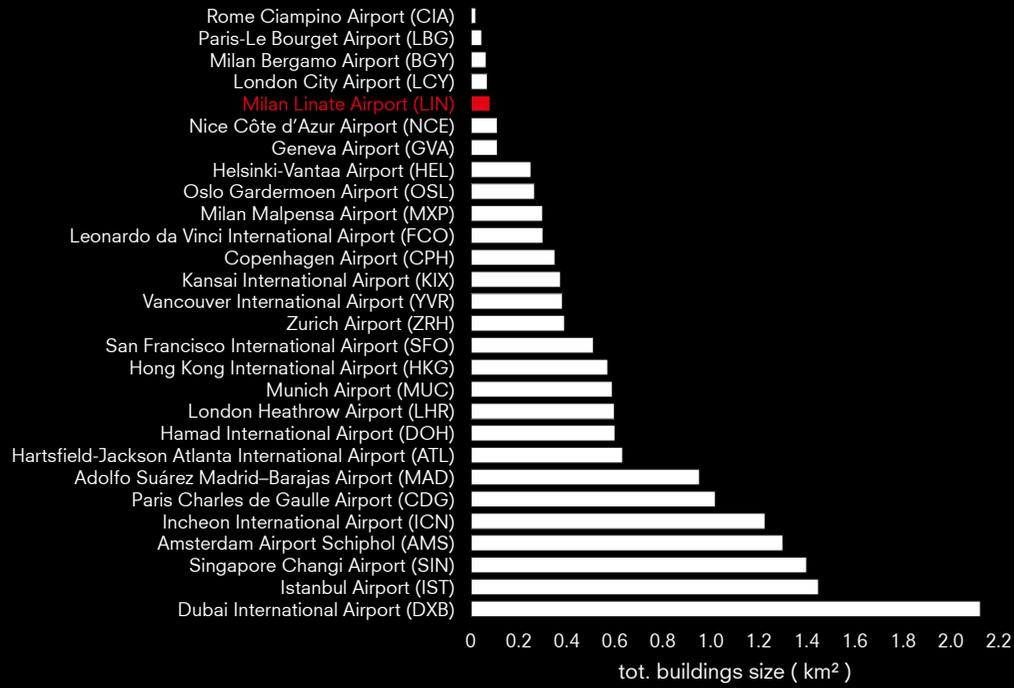**Geneva Airport (GVA)**
Geneva, Switzerland / 1920
C B

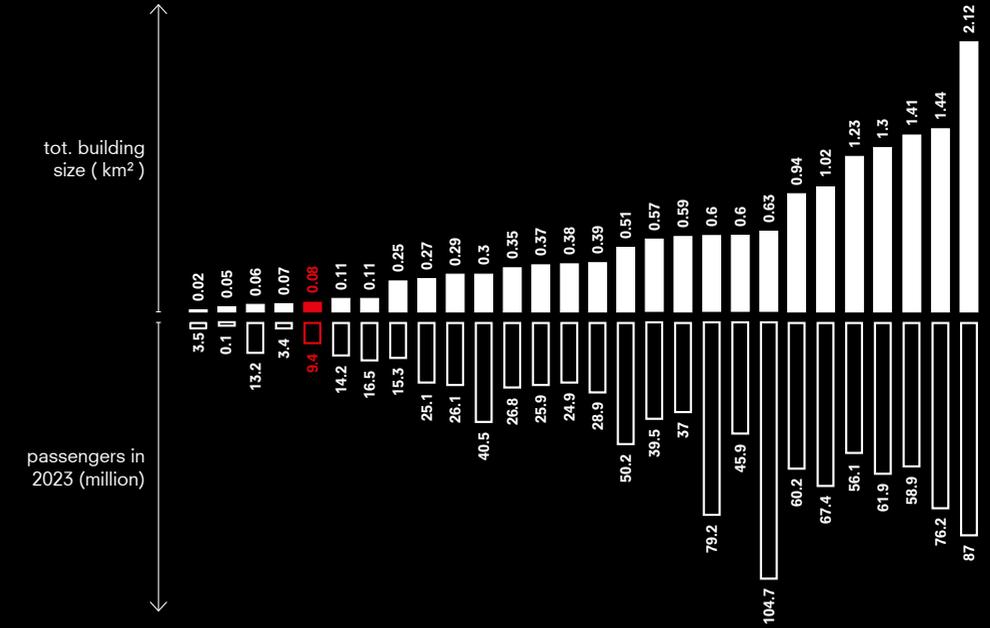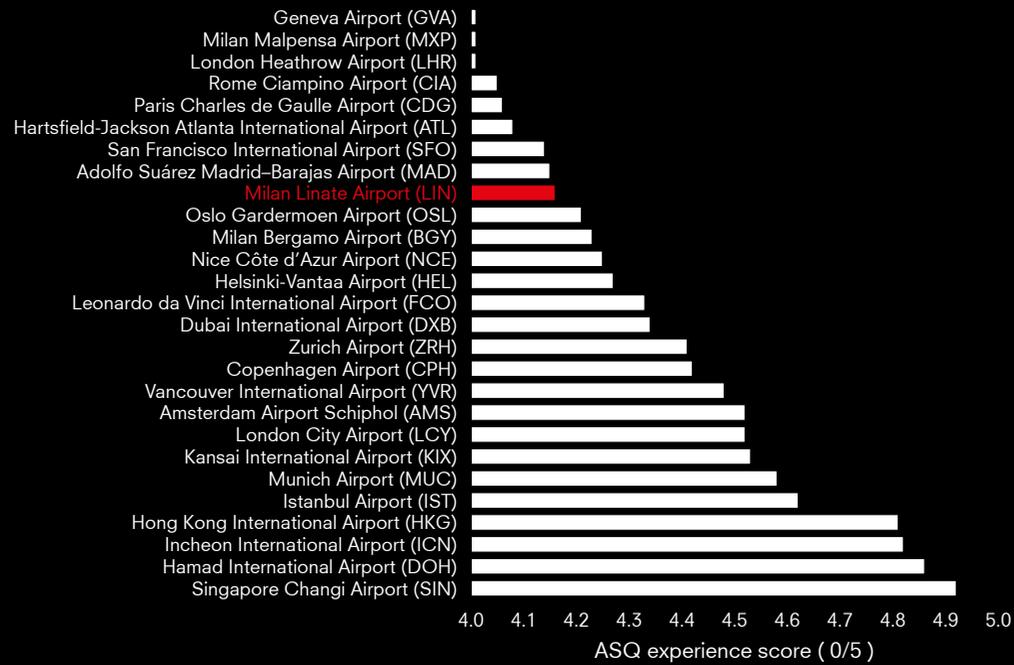**Paris-Le Bourget Airport (LBG)**
Paris, France / 1919
B

Program

Size

Rome Ciampino Airport (CIA)
Paris-Le Bourget Airport (LBG)
Milan Bergamo Airport (BGY)
London City Airport (LCY)
Milan Linate Airport (LIN)
Nice Côte d'Azur Airport (NCE)
Geneva Airport (GVA)
Helsinki-Vantaa Airport (HEL)
Oslo Gardermoen Airport (OSL)
Milan Malpensa Airport (MXP)
Leonardo da Vinci International Airport (FCO)
Copenhagen Airport (CPH)
Kansai International Airport (KIX)
Vancouver International Airport (YVR)
Zurich Airport (ZRH)
San Francisco International Airport (SFO)
Hong Kong International Airport (HKG)
Munich Airport (MUC)
London Heathrow Airport (LHR)
Hamad International Airport (DOH)
Hartsfield-Jackson Atlanta International Airport (ATL)
Adolfo Suárez Madrid–Barajas Airport (MAD)
Paris Charles de Gaulle Airport (CDG)
Incheon International Airport (ICN)
Amsterdam Airport Schiphol (AMS)
Singapore Changi Airport (SIN)
Istanbul Airport (IST)
Dubai International Airport (DXB)

0   0.2   0.4   0.6   0.8   1.0   1.2   1.4   1.6   1.8   2.0   2.2
tot. buildings size (km²)

ASQ Experience Score

Geneva Airport (GVA)
Milan Malpensa Airport (MXP)
London Heathrow Airport (LHR)
Rome Ciampino Airport (CIA)
Paris Charles de Gaulle Airport (CDG)
Hartsfield-Jackson Atlanta International Airport (ATL)
San Francisco International Airport (SFO)
Adolfo Suárez Madrid–Barajas Airport (MAD)
Milan Linate Airport (LIN)
Oslo Gardermoen Airport (OSL)
Milan Bergamo Airport (BGY)
Nice Côte d'Azur Airport (NCE)
Helsinki-Vantaa Airport (HEL)
Leonardo da Vinci International Airport (FCO)
Dubai International Airport (DXB)
Zurich Airport (ZRH)
Copenhagen Airport (CPH)
Vancouver International Airport (YVR)
Amsterdam Airport Schiphol (AMS)
London City Airport (LCY)
Kansai International Airport (KIX)
Munich Airport (MUC)
Istanbul Airport (IST)
Hong Kong International Airport (HKG)
Incheon International Airport (ICN)
Hamad International Airport (DOH)
Singapore Changi Airport (SIN)

4.0   4.1   4.2   4.3   4.4   4.5   4.6   4.7   4.8   4.9   5.0
ASQ experience score (0/5)

Size / Passenger Capacity

tot. building size (km²)

0.02   0.05   0.06   0.07   0.08   0.11   0.11   0.25   0.27   0.29   0.3   0.35   0.37   0.38   0.39   0.51   0.57   0.59   0.6   0.6   0.63   0.94   1.02   1.23   1.3   1.41   1.44   2.12

passengers in 2023 (million)

3.5   0.1   13.2   3.4   9.4   14.2   16.5   15.3   25.1   26.1   40.5   26.8   25.9   24.9   28.9   50.2   39.5   37   45.9   79.2   60.2   67.4   56.1   61.9   58.9   76.2   104.7   87

ASQ Experience Score / SQM Activities P.P.

ASQ experience score (0 / 5)

4.01   4.01   4.01   4.05   4.06   4.08   4.14   4.15   4.16   4.21   4.23   4.25   4.27   4.33   4.34   4.41   4.42   4.48   4.52   4.52   4.53   4.58   4.62   4.81   4.82   4.86   4.92

m² activities / passenger

0.38   0.3   0.33   0.28   0.35   0.14   0.2   0.31   0.42   0.33   0.43   0.27   0.45   0.34   0.44   0.37   0.51   0.48   0.43   0.54   0.36   0.48   0.46   0.42   0.61   0.86   0.98

Program

Airport Database: Experience

To determine what additional experiences could enhance airports, research into the existing programs at benchmark airports was essential. The best contemporary airport experiences offer a wide range of activities, including retail shopping, restaurants, lounges, art installations, cultural exhibits, wellness and spa facilities, cinemas, observation decks, indoor parks, children's zones, museums, meditation spaces, gyms, and occasional live performances.

Airport Benchmark

The different analysis of the database showed that the more activities per passenger, the better the overall satisfaction score for the airport. This led to the choice of the six best scoring airports to further formulate a program design brief, including: Singapore Changi Airport (SIN), Hamad International Airport (DOH), Icheon International Airport (ICN), Honk Kong International Airport (HKG), Istanbul Airport (IST) and Amsterdam Schiphol Airport (AMS). The airports were analyzed in further deph on size, typology and accurate program in square metres.

SQM Activities / Passenger

Hartsfield-Jackson Atlanta International — 0,17
San Francisco International Airport (SFO) — 0,2
Nice Côte d'Azur Airport (NCE) — 0,27
Rome Ciampino Airport (CIA) — 0,28
Milan Malpensa Airport (MXP) — 0,3
Adolfo Suárez Madrid-Barajas Airport — 0,31
London Heathrow Airport (LHR) — 0,33
Oslo Gardermoen Airport (OSL) — 0,33
Milan Bergamo Airport (BGY) — 0,34
Leonardo da Vinci International Airport — 0,34
Paris Charles de Gaulle Airport (CDG) — 0,35
Kansai International Airport (KIX) — 0,36
Zurich Airport (ZRH) — 0,37
Geneva Airport (GVA) — 0,38

Hong Kong International Airport (HKG) — 0,42
Milan Linate Airport (LIN) — 0,42
Amsterdam Airport Schiphol (AMS) — 0,43
Dubai International Airport (DXB) — 0,44
Helsinki-Vantaa Airport (HEL) — 0,45
Istanbul Airport (IST) — 0,46
Munich Airport (MUC) — 0,48
Vancouver International Airport (YVR) — 0,48
Copenhagen Airport (CPH) — 0,51
London City Airport (LCY) — 0,54
Incheon International Airport (ICN) — 0,61
Hamad International Airport (DOH) — 0,86
Singapore Changi Airport (SIN) — 0,98

art installations

cultural exhibits

shopping

lounges

amusement

cinema

wellness & spa

restaurants

parks

museums

children's zone

meditation

live performances

observation deck

fitness

Program

T3

T4

JEWEL

T1

T2

Singapore Changi Airport (SIN)

departures	security	concourse	baggage	arrivals	back of house	bag. handling	cores
13%		36%	7%	6%	30%	6%	

Program

Milan Linate Second Floor

Hamad International Airport (DOH)
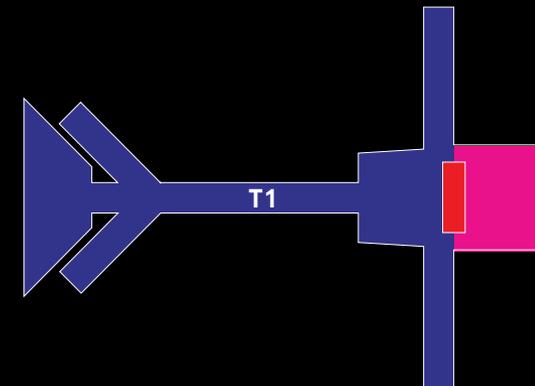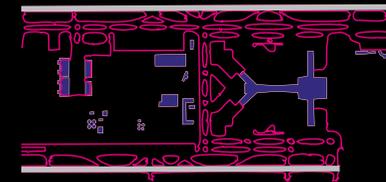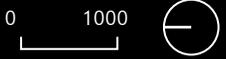
	security					baggage			back of house		cores
5%	3			53%			3	2		26%	6%
departures	concourse							arrivals			bag. handling

Program

T2 ▶   ◀ T1

Icheon International Airport (ICN)
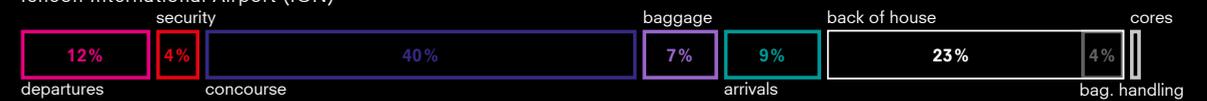
	security			baggage		back of house		cores
12%	**4%**	**40%**		**7%**	**9%**	**23%**	**4%**	
departures	concourse				arrivals			bag. handling

Program

0   1000

T1

Hong Kong International Airport (HKG)

	security				baggage		back of house		cores
12%	**3**		**47%**		**4%**	**6%**	**23%**	**4%**	
departures		concourse				arrivals			bag. handling

82   83

Program

Istanbul, Turkey / 2018

0   1000

T1

Istanbul International Airport (IST)

	security			baggage			back of house		cores
7%	3	38%		8%	8%	26%		9%	

departures   concourse   arrivals   bag. handling

Program

0   1000

T1

Amsterdam Schiphol Airport (AMS)

security		baggage	back of house	cores

9%	4%	48%	3	7%	24%	4%	

departures   concourse   arrivals   bag. handling
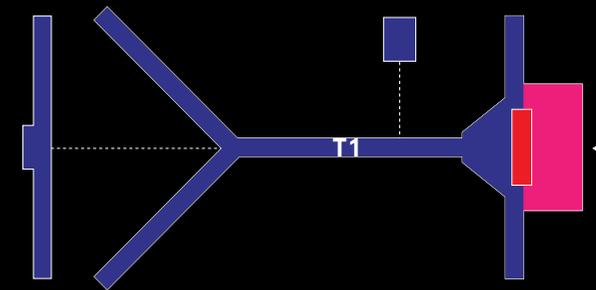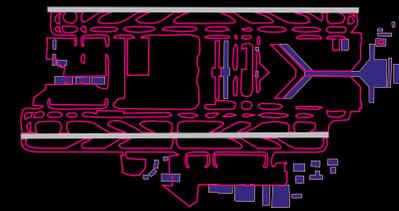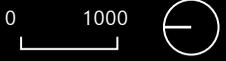
Program

Airport Benchmark

The six best scoring airports' programs and Milan Linate airport's current program were used to formulate the proposed program bar. In the proposed program for the Milan Linate Experience Node (MLEN), the councourse is larger to ensure enough space for event flexibility space. The security is notably slightly smaller due to smart security integration.

Milan Linate Airport (LIN) current

	security			baggage		back of house		cores
15%	5%	26%		5%	8%	31%	6%	4%
departures		concourse			arrivals		bag. handling	

+

Singapore Changi Airport (SIN)

| 13% | | 36% | 7% | 6% | 30% | 6% | |

+

Hamad International Airport (DOH)

| 5% | 3 | 53% | 3 | 2 | 26% | 6% | |

+

Icheon International Airport (ICN)

| 12% | 4% | 40% | 7% | 9% | 23% | 4% | |

+

Hong Kong International Airport (HKG)

| 12% | 3 | 47% | 4% | 6% | 23% | 4% | |

+

Istanbul International Airport (IST)

| 7% | 3 | 38% | 8% | 8% | 26% | 9% | |

+

Amsterdam Schiphol Airport (AMS)

| 9% | 4% | 48% | 3 | 7% | 24% | 4% | |

↓

Milan Linate Experience Node (MLEN) proposal

	security		baggage		back of house		cores
11%	4%	41%	5%	7%	26%	5%	
departures		concourse		arrivals		bag. handling	

terminal building size — passenger capacity

Average area per passenger: ~0,16 m²

↓

TERMINAL = ~245.000 M²

ASQ experience score (0 / 5) — m² activities / passenger
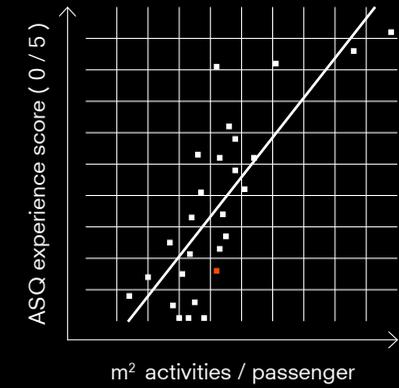
Ideal area per passenger: ~0,98 m²

↓

EXPERIENCE = ~40.000 M² +

Database Conclusion

The conclusion of the database analysis shows that the average terminal area per passenger is ~0.16 square meters. If we multiply this factor by the expected 15 million passengers we can calculate that the airport terminal size should be around 245,000 square meters.

This analysis also shows that greater experience area per passenger leads to higher overall satisfaction. Within this study, Singapore Changi Airport ranks the highest, offering 0.98 square meters per passenger. Using this as a benchmark, the design should allocate at least 0.98 square meters per passenger. For 15 million passengers, this equates to approximately 40,000 square meters dedicated to the experience program.

Program

Airport Benchmark

An additional 40,000 square meters for the experience program and also the additional airport support functions will be added to the terminal program, forming the total program.

The additional 40,000 square meters of experience program will include a wide range of events: art installations, digital art rooms, retail outlets, sports tournaments, museums, design fairs, markets, galas, summits, conferences, multi-day festivals, theatrical performances, workshops, fashion shows, congresses, and concerts. Essentially, the airport spaces will have to be designed in such a flexible way that these events can be hosted. There will also be some dedicated spaces for static events, such as concerts in a concert hall and digital art in special venues.

Experience Benchmark

To understand the requirements for creating a successful experience program, we need to dive deeper into researching various event venues and their unique characteristics. This involves examining different types of venues: digital art exposition, concert hall, performance arts centre and a convention centre.

enduring — temporality — live-action

months / weeks — days

ART INSTALLATIONS

SPORT TOURNAMENTS

MARKETS

CONFERENCES

CONCERTS

DIGITAL ART

RETAIL OUTLETS

GALAS

MULTI-DAY FESTIVALS

FASHION SHOWS

MUSEUMS

DESIGN FAIRS

SUMMITS

THEATRICAL PERFORMANCES

WORKSHOPS

CONGRESSES

Milan Linate Airport (LIN) current

departures	security	concourse	baggage	arrivals	back of house		cores
15%	5%	26%	5%	8%	31%	6%	4%

departures — security — concourse — baggage — arrivals — back of house — bag. handling — cores

Milan Linate Experience Node (MLEN) proposal

departures	security	concourse	baggage	arrivals	back of house	cores
11%	4%	41%	5%	7%	26%	5%

departures — security — concourse — baggage — arrivals — back of house — bag. handling — cores

+

Airport Support program (MLEN) proposal

parking — biz. hangars — hotel — other services

Experience program

experience
40.000m²

Lightroom King's Cross
London, UK / 2023

Casa de Música
Porto, Portugal / 2004

Tapei Performing Arts Center
Tapei, Taiwan / 2022

Allianz MiCo Milan
Milan, Italy / 2002

Program
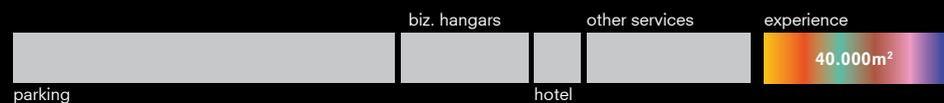
Event Venues

The different venues for events: digital arts venue, concert hall, performance center and convention center, each demonstrate unique qualities that must be considered in the airport's design. Notably, the use of space varies significantly across these venues. For instance, the convention center allocates the largest proportion of its area to venue space relative to support spaces. This principle could be adapted to create flexible airport halls with similar efficiency. On the other hand, performing arts venues require a significant portion of support spaces to sustain the performance operations, emphasizing the need for dedicated and static areas within the airport to accommodate such activities effectively.

Lightroom King's Cross

circulation	amenities	event space	back of house		cores
30%	17%	26%	10%	3%	14%

technical

Casa de Música

	amenities		back of house		cores
circulation		performance space		technical	
10%	10%	36%	17%	17%	10%

Tapei Performing Arts Center

	amenities		back of house		cores
circulation		performance space		technical	
18%	7%	23%	23%	20%	9%

Allianz MiCo Milan

	amenities		back of house	cores
circulation	event space			technical
7%	3	85%	2	2

Lightroom King's Cross
London, UK / 2023

Casa de Música
Porto, Portugal / 2004

Tapei Performing Arts Center
Tapei, Taiwan / 2022

Allianz MiCo Milan
Milan, Italy / 2002

FLEXIBLE HALLS
SUPPORT
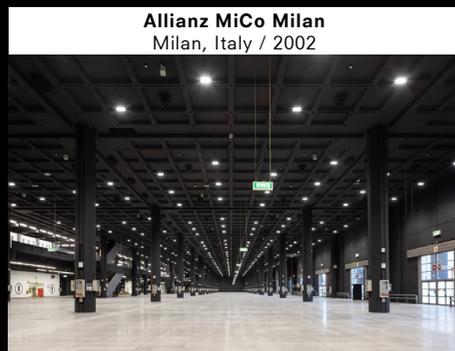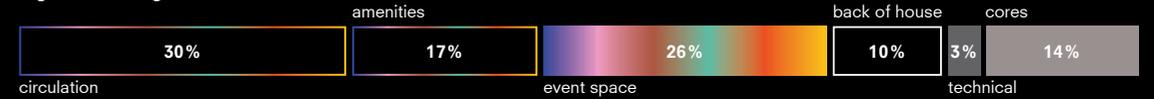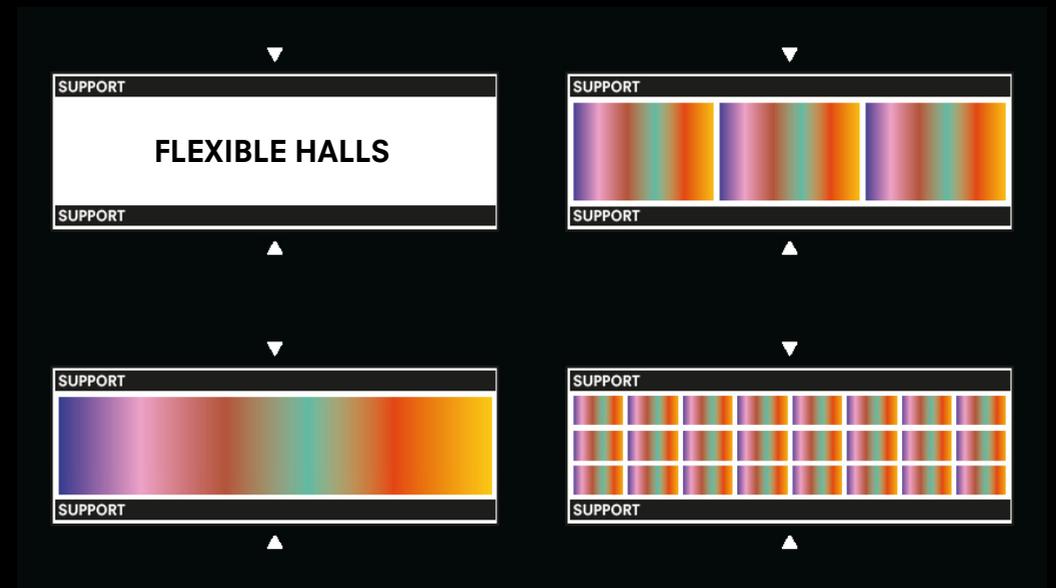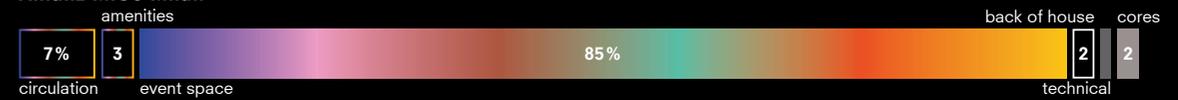
Allianz MiCo Milan
Milan, Italy / 2002

Program

Proposed Program

The proposed airport program spans approximately 445,000 square meters in total. This includes the additional 40,000 square meters dedicated to the experience program, the enlarged airport terminal program totaling 245,000 square meters, and the service area of around 160,000 square meters. The service area encompasses parking, hangars, offices, a hotel, and handling facilities.

The experience program will include dedicated static spaces for light rooms, concert halls, plenary spaces, and their service areas. It will also provide additional storage and back-of-house spaces around the airport halls to support event flexibility. The airport terminal will combine commercial and business aviation functions with expanded retail, lounge, and restaurant offerings. The service program will sustain the terminal by supporting its additional functions. The spatial layout will feature the main entrance at the airport curb, connected to the metro, parking, hotel, and parks. A central public space, referred to as the "plaza," will link to the departures and arrivals areas. These three zones will be designed to interconnect, allowing the creation of either a large venue space or smaller, separate venue spaces. Flexibility to alternate between events and regular airport operations will also be integrated into the concourse hall. After customs, the concourse will connect to various static event venues, such as concert halls and digital art installations. These venues will be strategically positioned to remain visible to the airport public. Events and passenger movements will seamlessly coexist, ensuring a harmonious flow. Ultimately, the concourse will also connect to the business terminal and baggage hall.

EXPERIENCE 40.000 M²

AIRPORT TERMINAL ~245.000 M²

SERVICE PROGRAM ~160.000 M²

EXPERIENCE 40.000 M²	DEPARTURES 26.400 M²	SECURITY 9.600 M²	CONCOURSE 98.400 M²	BAGGAGE 12.000 M²	ARRIVALS 16.800 M²	BACK OF HOUSE 62.400 M²	CORES 2.400 M²	BUSINESS TERMINAL 3.250 M²	OTHER 75.300 M²	PARKING 85.100 M²
9.0%	6.0%	2.2%	22.2%	2,7%	3.8%	14.1% / 2.7%	0,5%	0.7%	6.4% / 2.3% / 8.2%	19.2%

EXPERIENCE 40.000 M²

EXPERIENCE 40.000 M²
- backhouse 1.500 m²
- storage 2.000 m²
- plenary 4.000 m²
- exhibition 13.500 m²
- technical 500 m²
- logistics 3500 m²
- performer 500 m²
- black box 1.500 m²
- theatre hall 3.000 m²
- concert halls 6.000 m²
- lightrooms 3.000 m²
- other 500 m²
- technical 200 m²
- storage 300 m²

AIRPORT TERMINAL ~245.000 M²

DEPARTURES 26.400 M²
- departures hall 16.368 m²
- check-in 2.112 m²
- retail 1.056 m²
- restaurants 2.640 m²
- toilets + nurs. 1.584 m²
- lounges 1.320 m²
- entrances 528 m²
- other 792 m²

SECURITY 9.600 M²
- customs hall 6.816 m²
- fast-track 672 m²
- passport ctrl. 1.824 m²
- security doors 288 m²

CONCOURSE 98.400 M²
- concourse hall 47.232 m²
- gates 28.536 m²
- retail 7.872 m²
- restaurants 5.904 m²
- lounges 2.952 m²
- toilets + nurs. 2.952 m²
- other 2.952 m²

BAGGAGE 12.000 M²
- baggage hall 10.920 m²
- toilets + nurs. 1.080 m²

ARRIVALS 16.800 M²
- arrivals hall 7.897 m²
- toilets + nurs. 840 m²
- restaurants 2.688 m²
- retail 672 m²
- travel offices 2.520 m²
- metro hall 840 m²
- entrances 672 m²
- other 672 m²

BACK OF HOUSE 62.400 M²
- bag. handling 12.000m²
- offics. + strge. 48.672 m²
- sec. offices 624 m²
- poliza 1872 m²
- carabinieri 1872 m²
- toilets 1.872 m²
- change rooms 1.872 m²
- corridor 5.160 m²

CORES 2.400 M²
- private cores 960 m²
- public cores 1440 m²

BUSINESS TERMINAL 3.250 M²
- 11x hangars 28.500 m²
- biz. terminal 2.850 m²
- techn. rooms 400 m²

SERVICE PROGRAM ~160.000 M²

OTHER 75.300 M²
- cites office 500 m²
- finance police 1.000 m²
- warh. storage 12.000 m²
- cargo handl. 8.000 m²
- logistic handl. 4.000 m²
- post handl. 2.000 m²
- clearance ofs. 1.000 m²
- main hangar 8.000m²
- common 3.300 m²
- 300 htl. rooms 7.000 m²
- 11x hangars 28.500 m²

PARKING 85.100 M²
- parking curb 1.300 m²
- parking taxi 1.400 m²
- t. parking 82.400 m²

Program

Program Conclusion

The program requirements include integrating an additional 40,000 square meters dedicated to the experience program. This includes static venues such as light rooms, concert halls, and other performance spaces. The program also emphasizes designing flexible airport spaces capable of hosting events. This multi-functionality extends to all spaces and halls within the airport complex, including a pre-security plaza.

The event program must be visible and attractive to users. Passengers should be drawn to these events and feel encouraged to explore the event spaces. This will be achieved through intuitive wayfinding, transparent walls, elevated tribune-style seating, and other design elements. The airport must literally serve as a stage for events, blending travel and event experiences.

EVENT PROGRAM EXPERIENCE	MULTI-FUNCTIONAL AIRPORT SPACES	EVENT VISIBILITY & CONNECTIVITY
40.000M²	FLEXIBILITY & SUPPORT	SPACIAL WAYFINDING
LIGHTROOMS	DEPARTURE & ARRIVALS	TRANSPARENT WALLS
CONCERT HALLS	PRE-SECURITY PLAZA	ELEVATION AS TRIBUNES
PERFORMANCE SPACES	CONCOURSE	USERS AND EVENTS MIXED
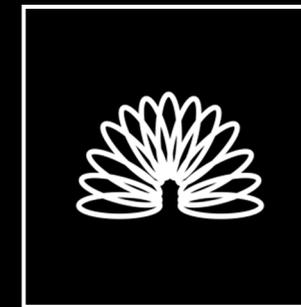
DESIGN
IMPLEMENTATION

03

Site Isometric

Concept Modelling

9x9 Model making exercise

After the design brief analysis, a 9x9 exercise was introduced to begin translating conceptual understanding into physical form. This involved the creation of a series of maquettes that explored how the needs of the site, client, and program could be materialised through spatial experimentation. Each model served as a testbed for interpreting abstract ideas into massing, scale, and spatial logic.

The exercise functioned as both an analytical tool and a creative process, allowing for the visualisation and refinement of design intentions. Through iterative exploration, it became possible to assess how different spatial strategies respond to context and programmatic requirements.

The outcome of the 9x9 exercise was the development of a coherent conceptual massing, which acted as the foundation for the ongoing design process. This moment marked a shift from research-driven thinking to architectural expression, offering a clear direction for further development.

Concept result of 9x9 exercise

Early concept: View from the Idroscalo park
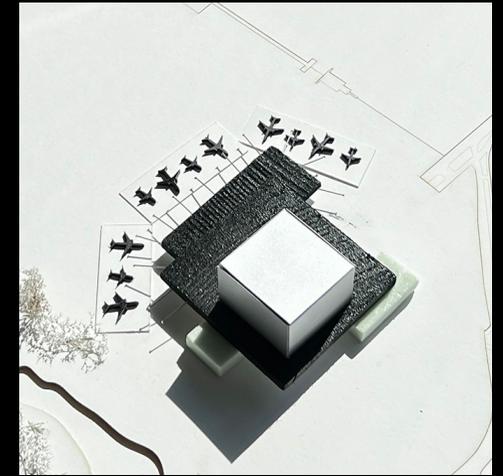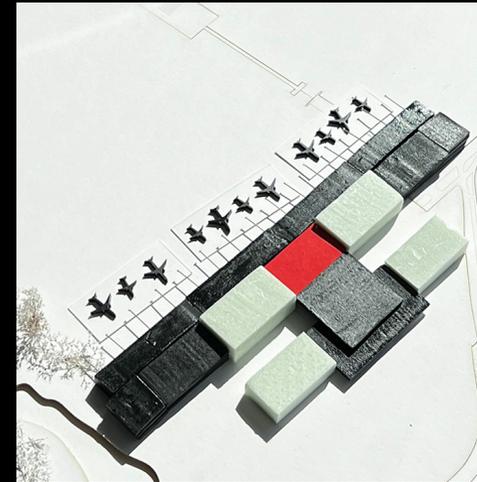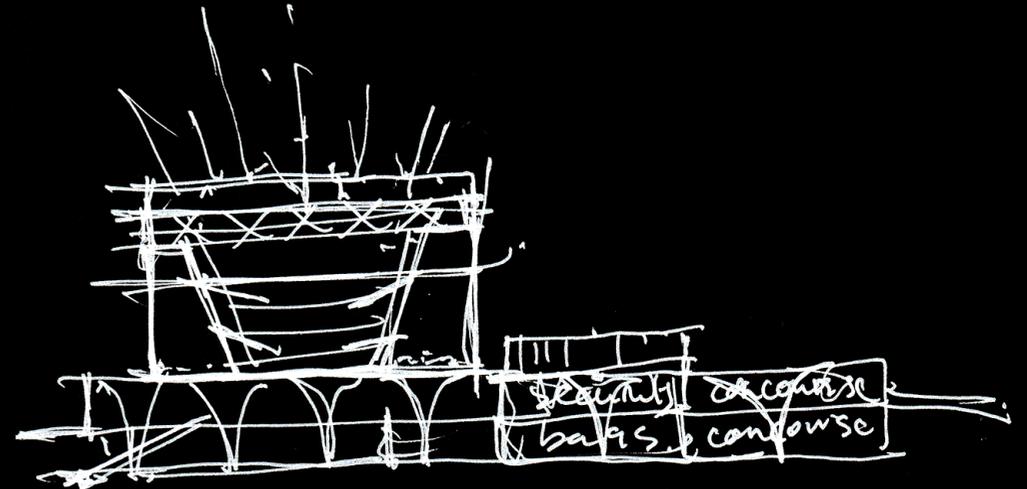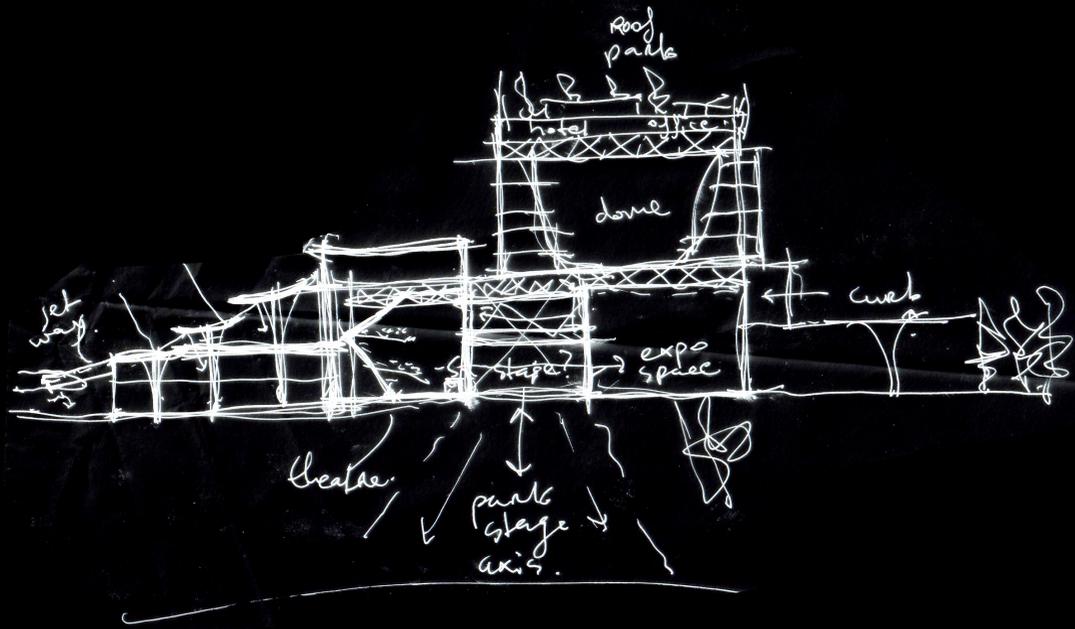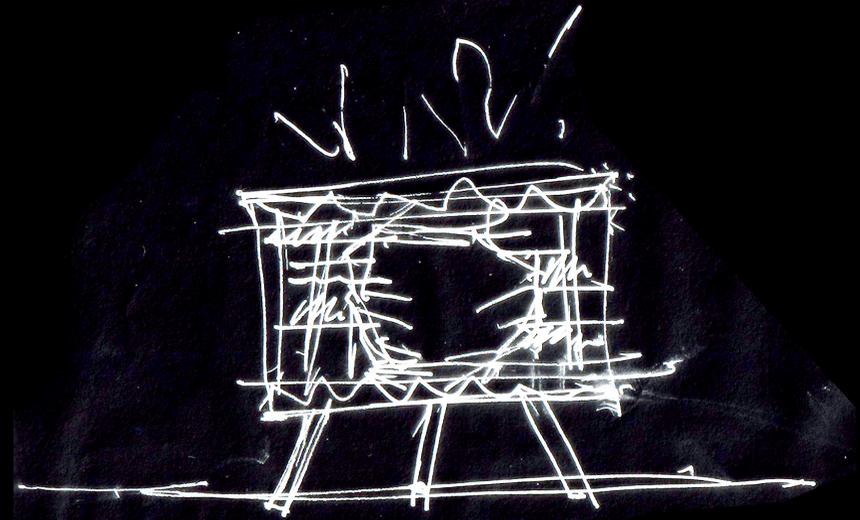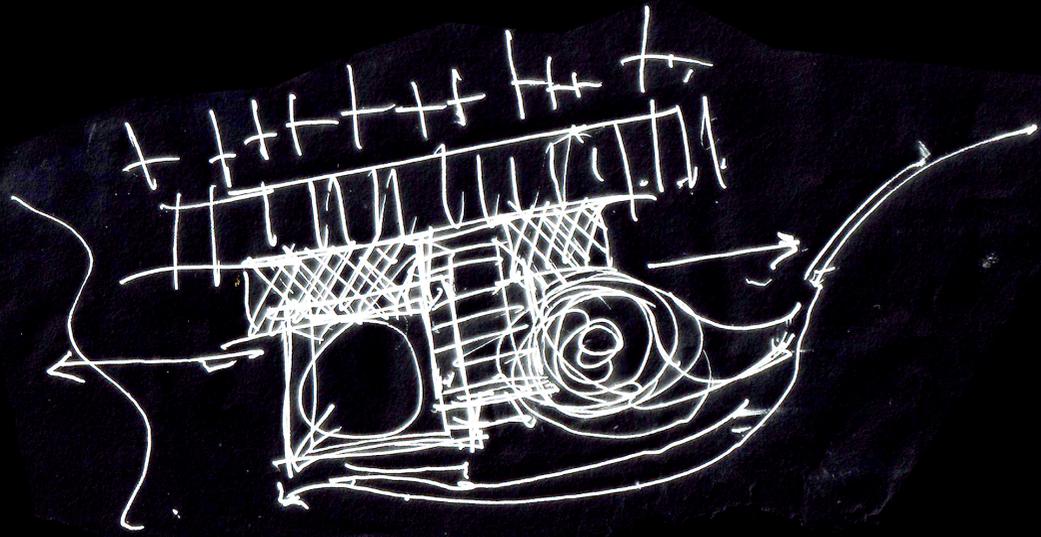
Urban Connection

Aeroporto Fiera Milano Linate occupies a uniquely strategic position within Milan's urban fabric. Located on a direct and continuous axis running from the city center, through the building itself, and extending all the way to Idroscalo Park, it offers a fast and efficient connection for both locals and international travelers. Its immediate proximity to the city, combined with a well integrated metro link, ensures seamless accessibility and makes the airport an attractive point of entry and departure.

Rather than functioning solely as an infrastructural node, Aeroporto Fiera Milano Linate becomes a satellite of Milan itself, a dynamic extension of the city's energy and public life. The building embraces this linear connection, creating an engaging market-like environment along the axis that guides visitors through the space, inviting gathering, exchange, and discovery.

This singular axis not only connects the city center directly to the green expanse of Idroscalo Park but also activates the surrounding urban fabric, bridging dense city life with natural landscape. The airport becomes the keystone in this new relationship, offering a fresh public realm that was previously missing.

Site plan: Urban context
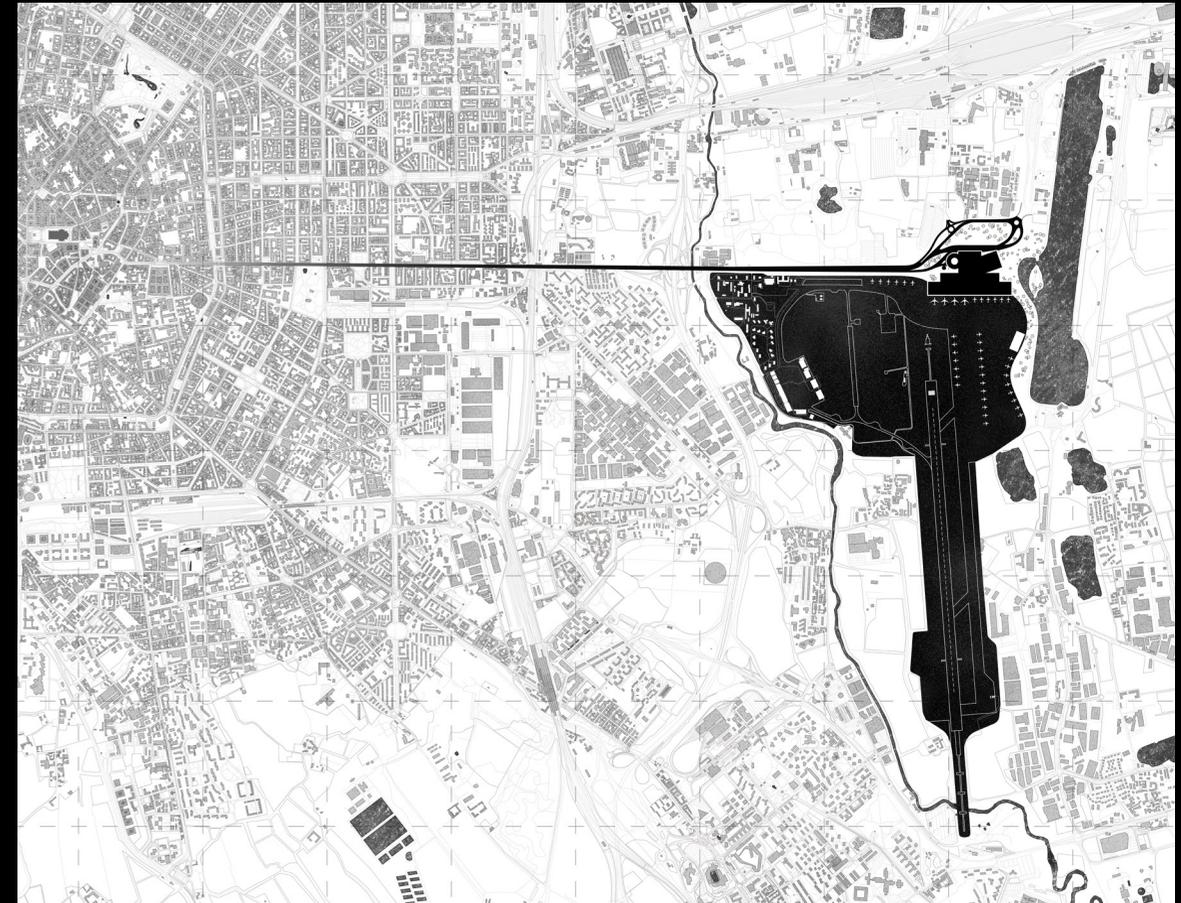
Site Plan

The continuous axis running from Milan's city center through Aeroporto Fiera Milano Linate shapes the building's very form and function. This linear corridor creates an open and interactive zone, acting as a dynamic bridge between the public landside and the secured airside of the airport. Along this main access route, multiple entrances are strategically located to allow swift and intuitive entry into the airport building, enhancing passenger flow and convenience.

This arrangement gives rise to a new building typology. One that blends circulation with vibrant public space and event programming. The axis is not just a passage but a flexible urban spine that supports a variety of uses and experiences.

At the far end of this axis, a large open area is designed to serve as a festival ground, capable of hosting outdoor events and gatherings. Along the length of the access, several event spaces activate the corridor. Two concert halls flank the axis, each designed to extend and open directly onto the passage. This allows the halls to transform, creating larger stages that spill into the corridor, merging performance spaces with the flow of people.

Similarly, the conference hall opens up directly to the axis, forming a walk-in event environment that blurs the boundary between programmed functions and public circulation. This design fosters spontaneous interaction, making the airport not only a place of travel but a cultural and social destination.

On the north side, the road and curb for pick-up and drop-off create the building's largest entrance and main frontage. However, this area does not serve as the primary entrance, as the building concept supports multiple access points beyond this. Situated between these elements is a parking garage designed in a spiral configuration, providing approximately 90,000 square meters of parking space, accommodating around 3,600 car slots.

0   50   100m

110

111
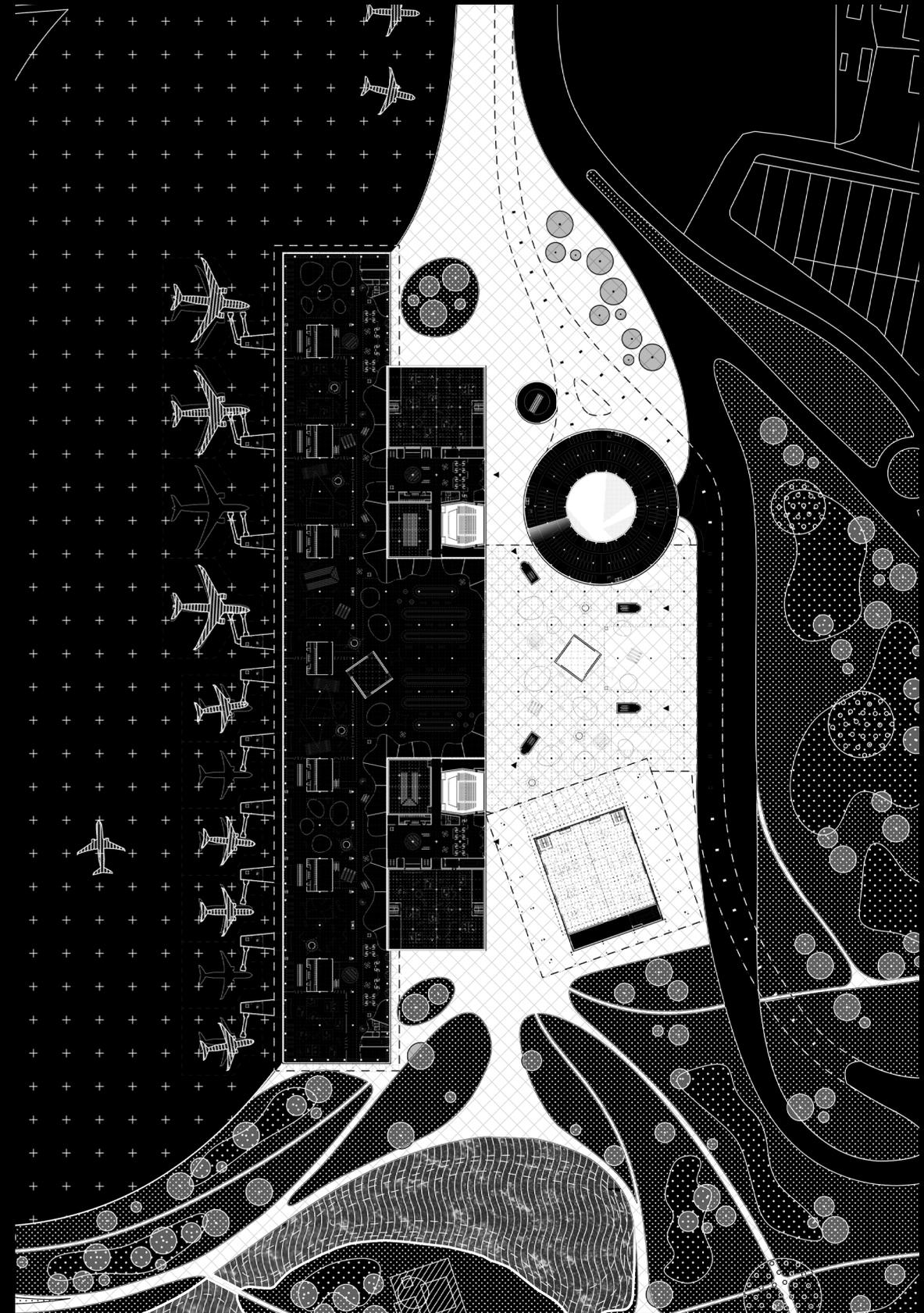
Bodies & Building Milan

The design for Aeroporto Fiera Milano Linate is not conceived as an isolated project but as part of a broader investigation into how architecture can serve the city through interconnected large-scale public buildings. Within the framework of the Complex Projects Milan Graduation Studio, architecture is approached not simply as the design of individual objects but as a strategic tool that responds to complexity, involves many stakeholders, and contributes meaningfully to the evolution of the city.

The studio, under the theme Bodies and Buildings, challenges the conventional understanding of public building types such as airports, libraries, train stations, courthouses, museums, and universities. Each project contributes to a shared rethinking of Milan's urban structure. In this context, the airport is treated not only as an infrastructural hub but as a connector and a space of public engagement.

The airport is designed to function on multiple levels, both as a point of international access and as an extension of the life of the city. Its connection to the main city axis, its opening toward Idroscalo Park, and the inclusion of event and cultural spaces position it as a key anchor in a network of public institutions working together to shape the future of Milan.

In this way, the airport becomes both an arrival point and a place of gathering, helping to blur the boundaries between infrastructure and city. It supports the studio's ambition to use architecture to bring forward spatial and programmatic improvements. With its flexible access, openness, and layered functions, the project becomes part of a wider urban experiment, offering new ways for people to move, meet, and identify with the city.

This reflects the central values of the studio: to engage with architectural complexity, respond to real demands, and propose new and useful futures for urban life.

Bodies & Buildings CP Milan Exposition 2025

Model scale 1:1500

First Floor

116

117
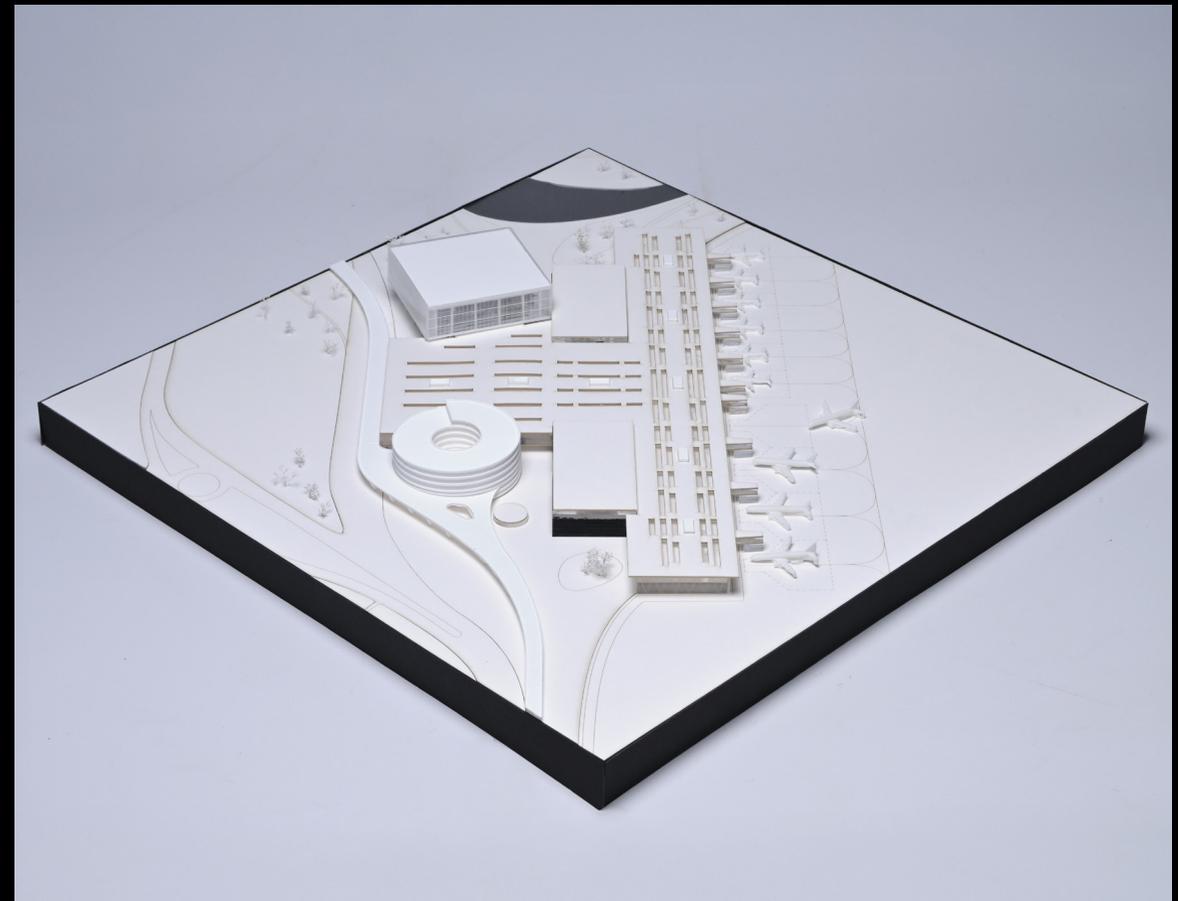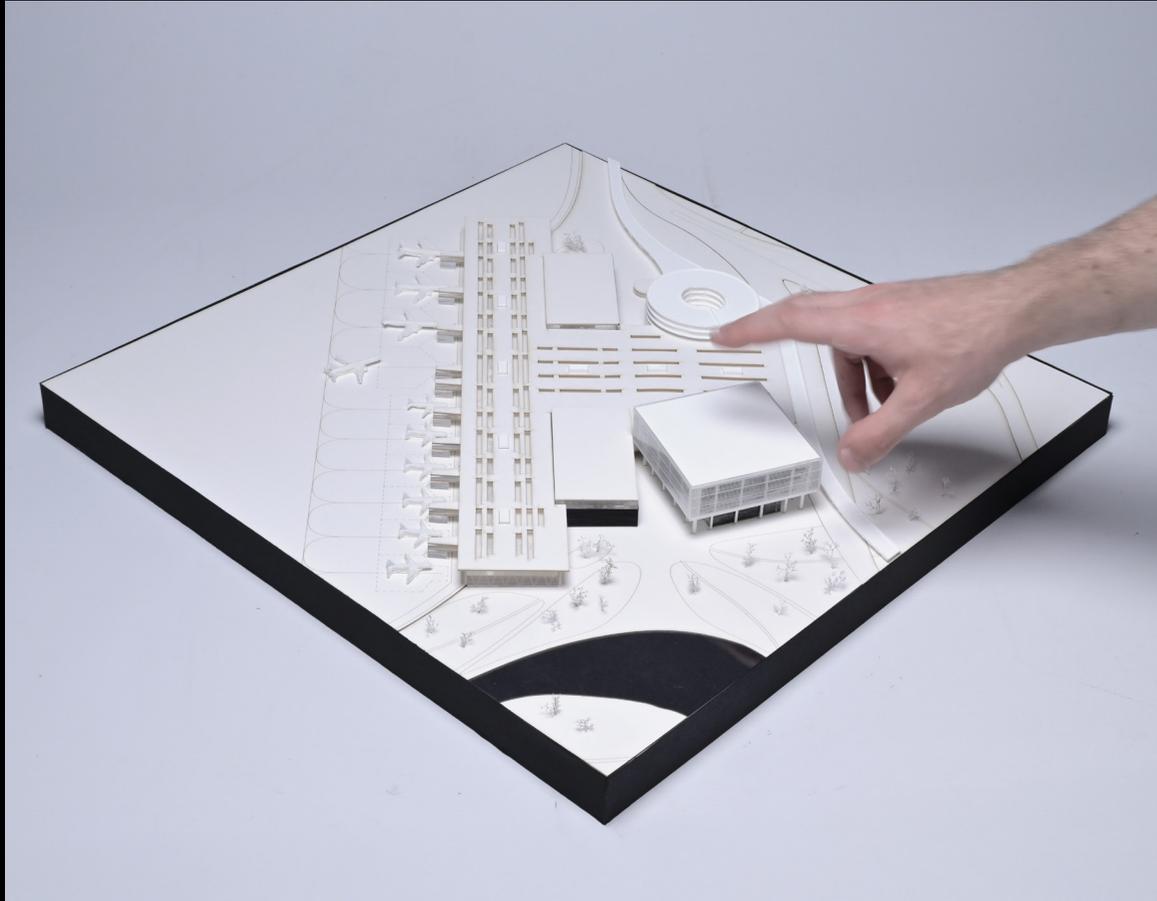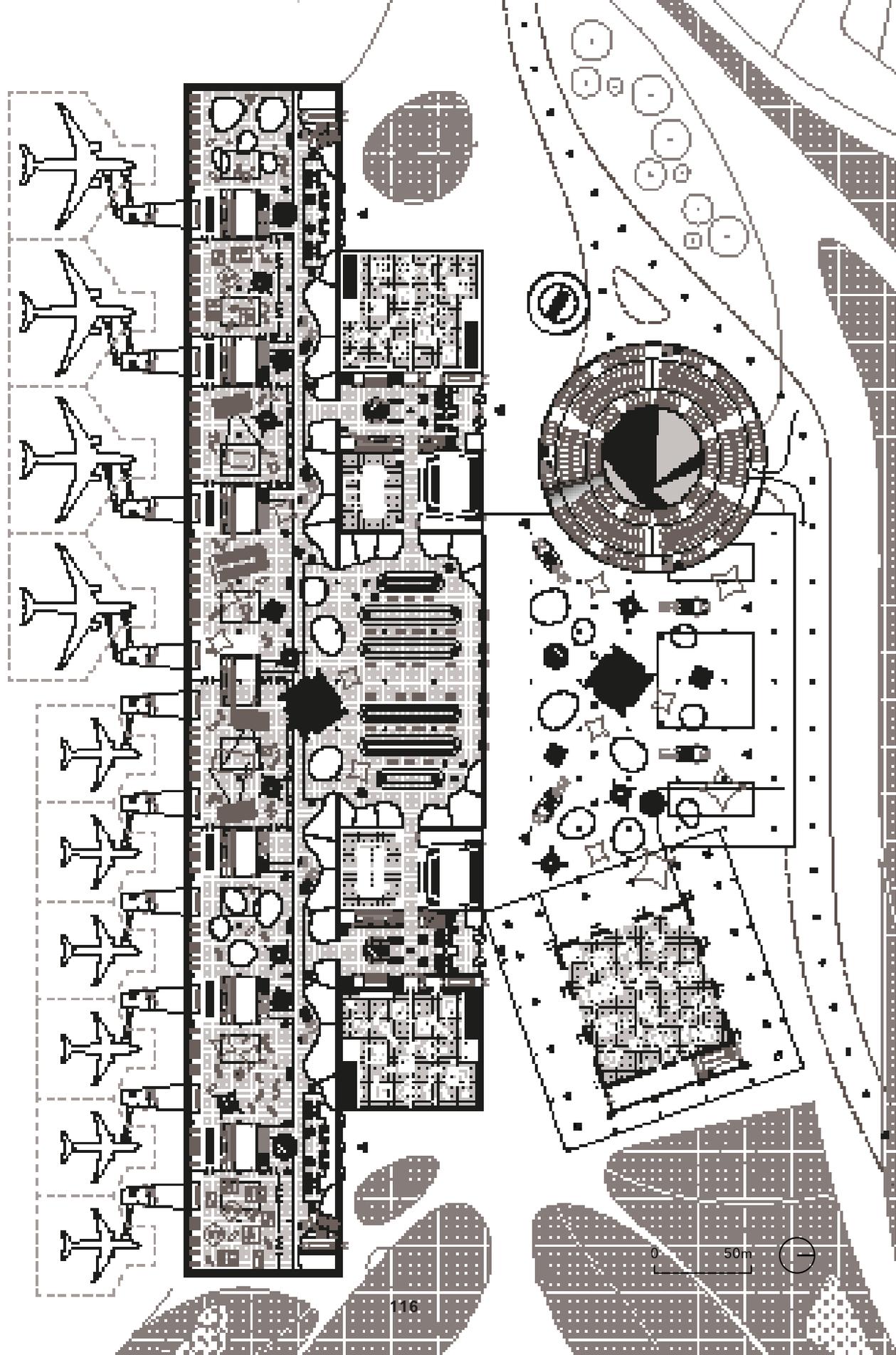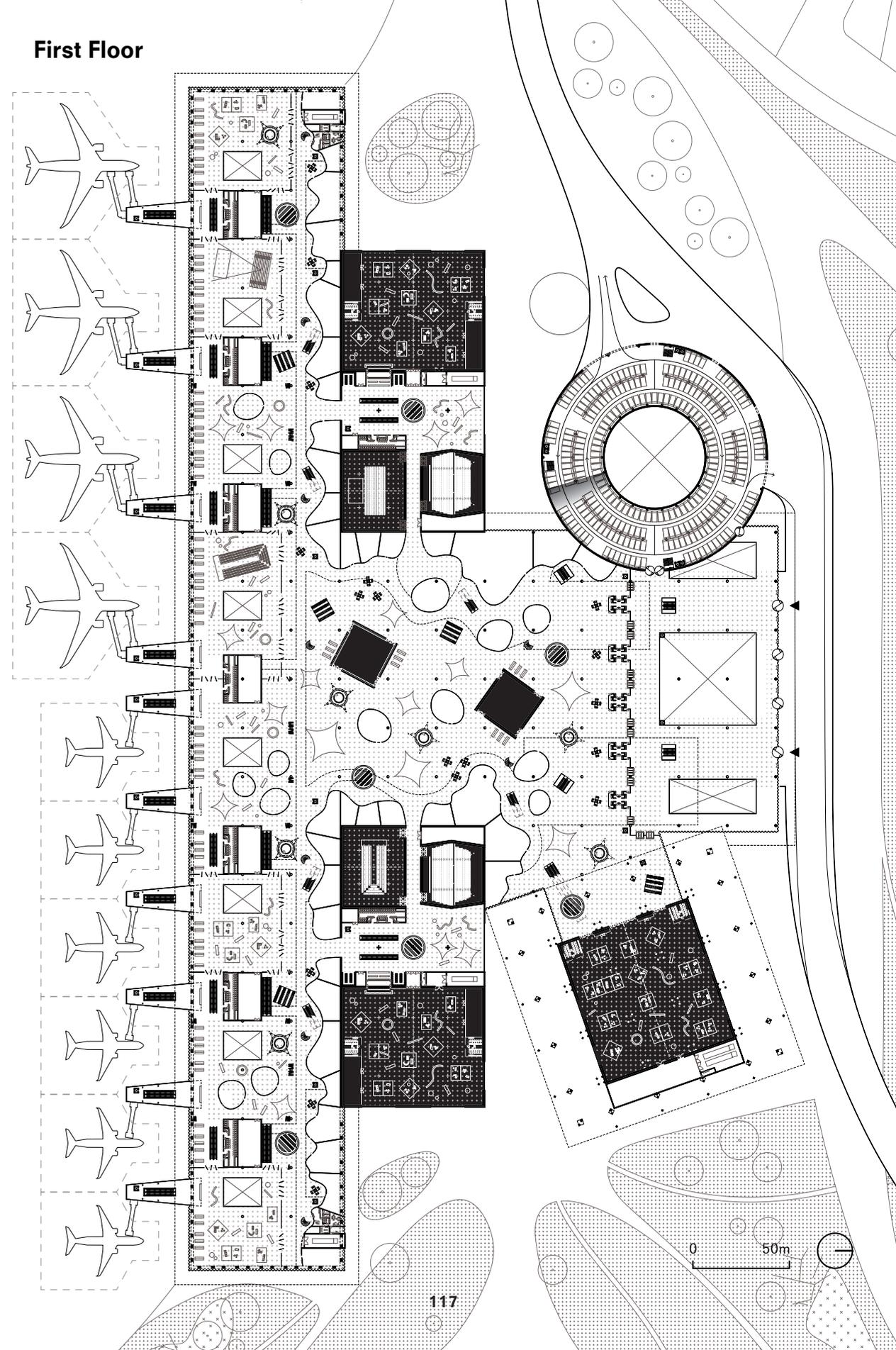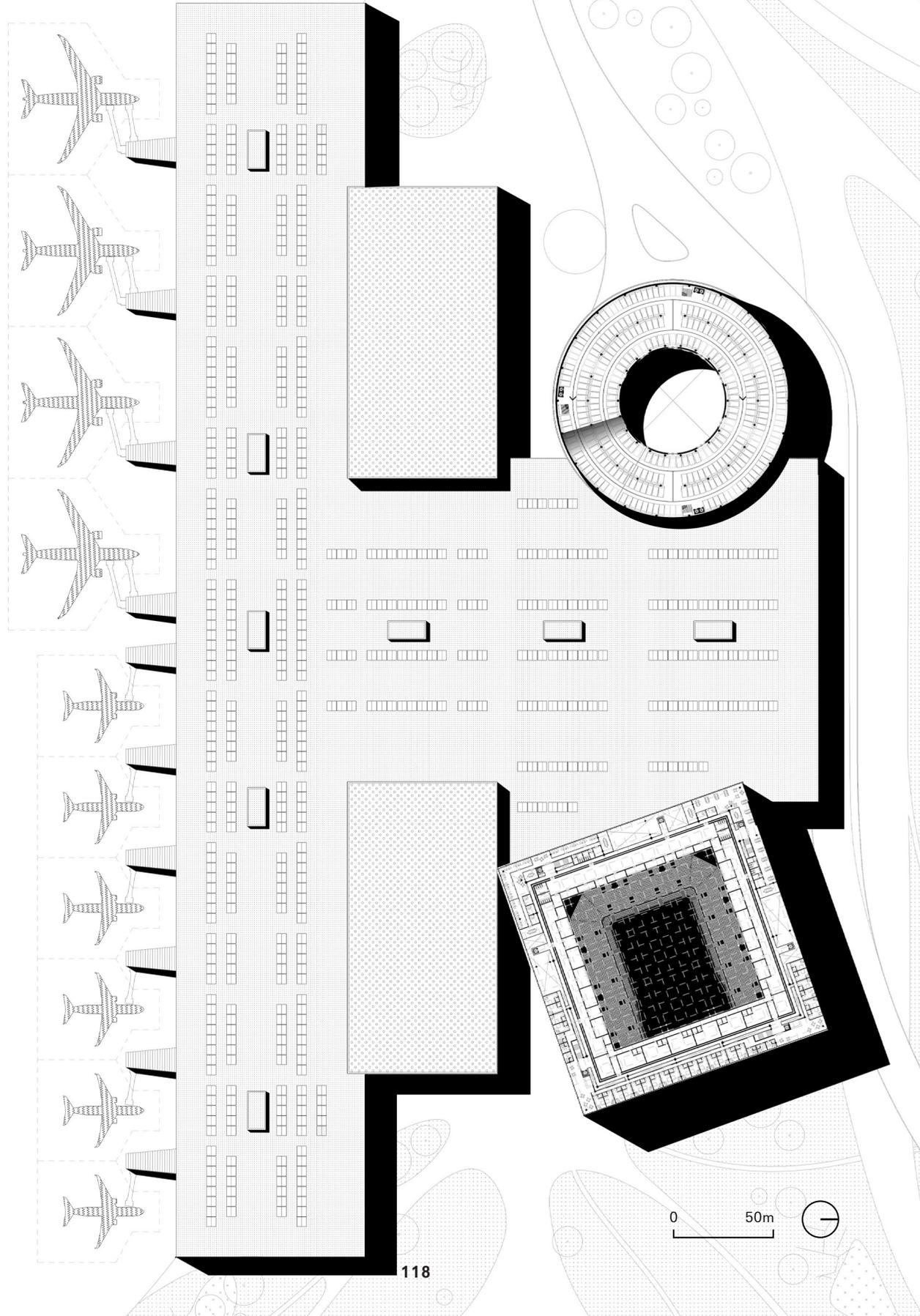
Aeroporto Fiera Milan Linate

The building is more than just an airport. It functions as a collage of distinct spaces brought together into one continuous public destination.

Rather than acting solely as a transit hub, the building enhances the experience of both passengers and visitors, offering a unique and flexible environment for Milan. At its core is a large, adaptable concourse that draws inspiration from the atmosphere of festivals, where lightweight structures and temporary installations shape a dynamic and ever-changing space. This flexible area is filled with a rich mix of restaurants, bars, lounges, pop-up stores, and shops, offering a variety of experiences for different types of users. The space adapts easily to changing needs and seasons, providing a vibrant setting that supports both travel and leisure.

Smart circulation and access systems are embedded throughout the building, allowing for seamless entry whether for travel or for attending events. Features such as lockers, coat checks, and baggage drop-off points are distributed across key areas and connect to an underground baggage system that sorts and stores luggage, either temporarily or for ongoing travel. These services support the ease and mobility of users, reinforcing the building's flexibility.

Throughout the building, static zones house permanent retail and dining spaces, while more fluid areas can shift function over time. Gate areas are designed as modular units that can be enclosed with large sliding doors. This allows them to transform into event halls, retail spaces, or remain operational as gates, depending on the programmatic needs.

Surrounding the central concourse are a series of separated subboxes, housing larger static programs such as conference halls and small concert venues. These spaces are designed to accommodate events independently, without requiring visitors to pass through the airport gate areas, allowing for parallel use by travelers and event-goers alike.

Connected to this ensemble is the large Box Building, rising approximately 60 meters in height. This volume contains two major conference halls on the ground and first floors, while the upper levels house a large-scale concert arena capable of hosting up to 15,000 visitors, comparable to venues like the Ziggo Dome. This arena is fully acoustically isolated, making it possible to hold large-scale performances without disrupting surrounding functions. Around the concert hall, a series of integrated volumes accommodate supporting programs such as offices, VIP lounges, artist spaces, hotel facilities, and the airport control tower. These functions are carefully embedded within the structure to ensure operational efficiency while contributing to the broader mixed-use character of the building.

As a whole, the building becomes a collage of venues: a layered and multifunctional environment that blurs the lines between infrastructure, event space, and public destination. Its high degree of flexibility and spatial variety allow it to attract a wide range of users.

The result is a new typology for Milan: a hybrid environment where movement, entertainment, and experience converge into what can be described as an experience machine.
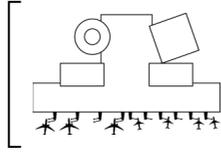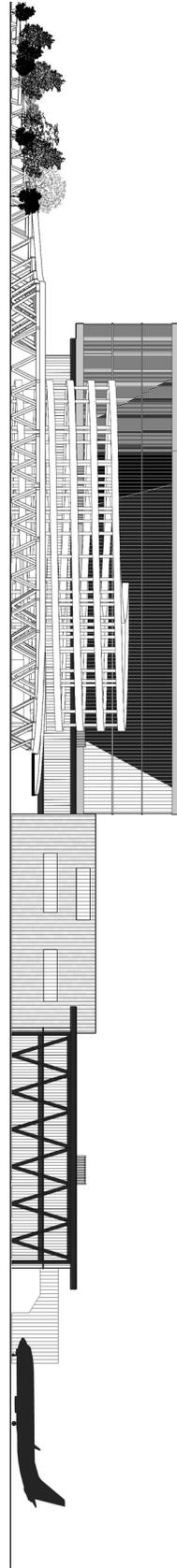
0   50m

West Elevation

South Elevation

Section AA'

Section BB'

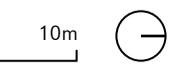**Box +5**

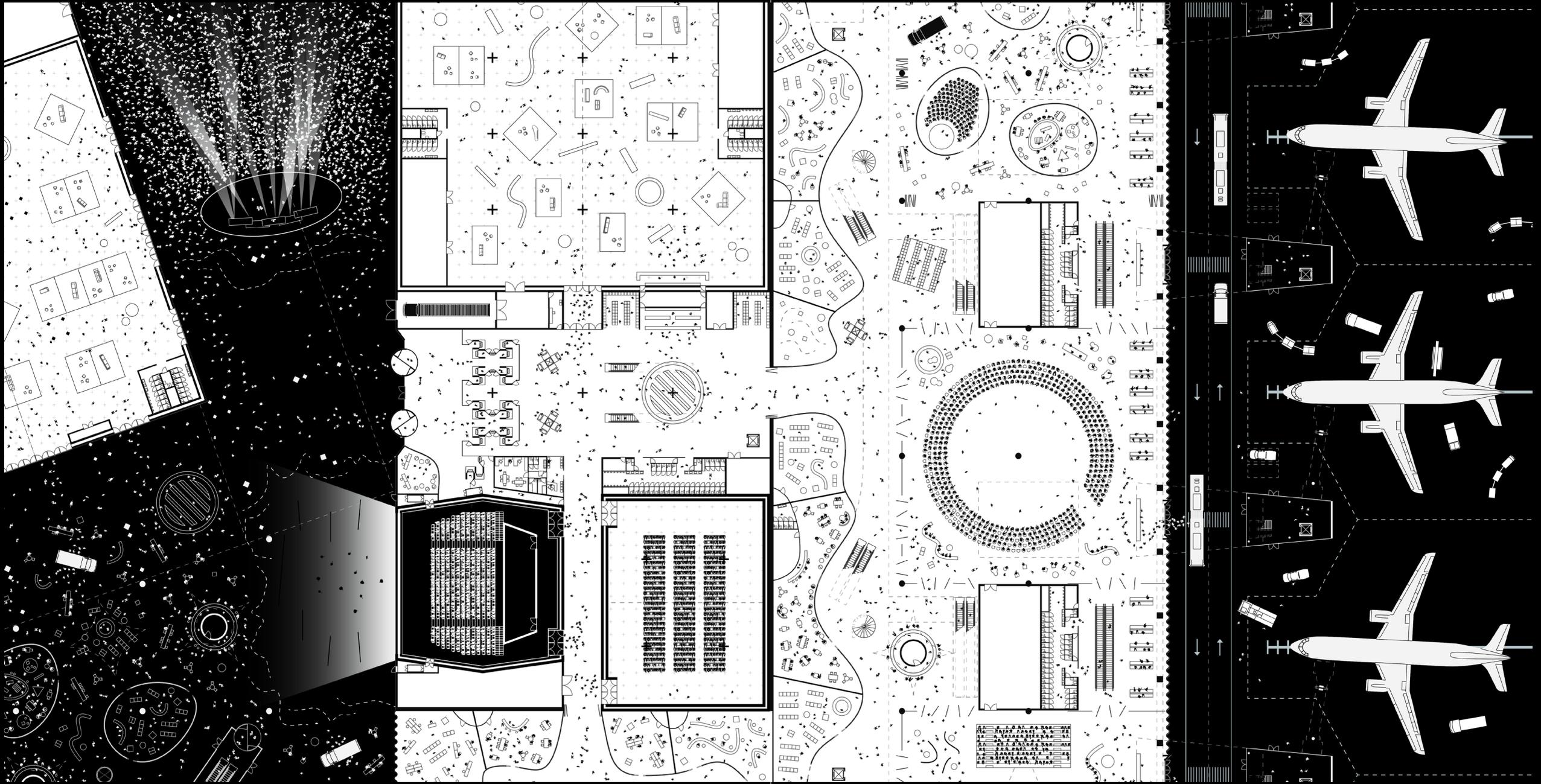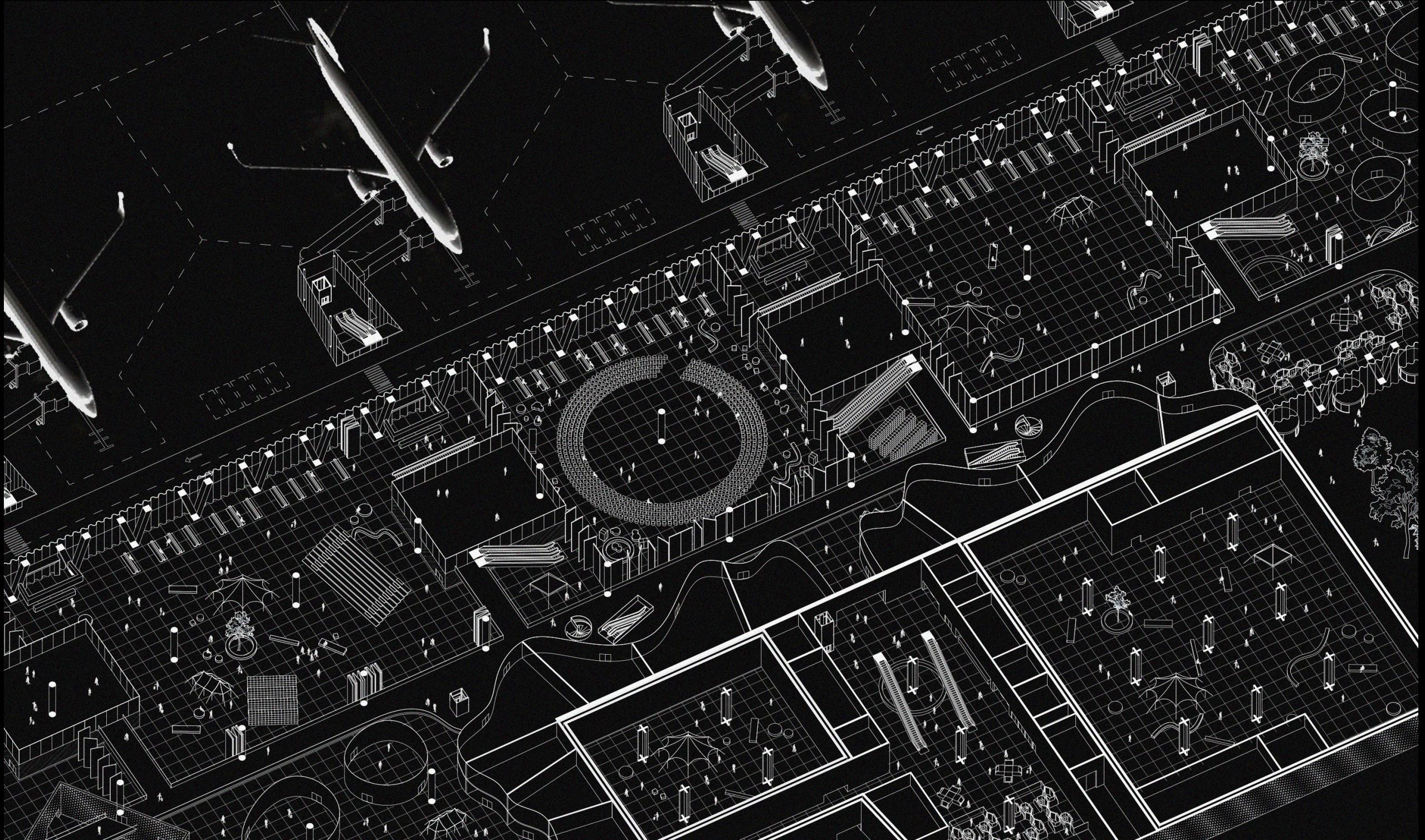**Box +10**

0   10m

0

10m

0   15m

Concourse Isometric
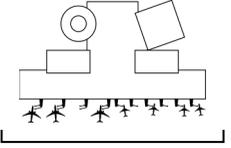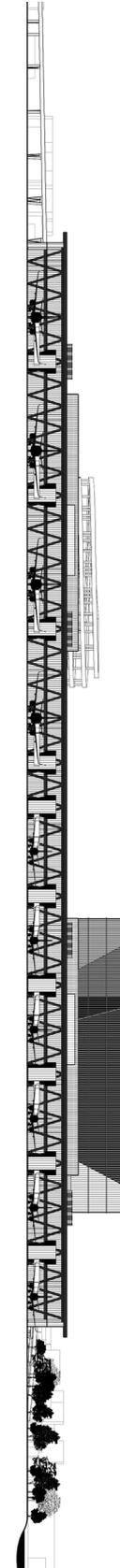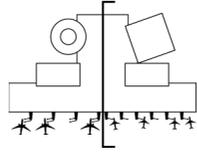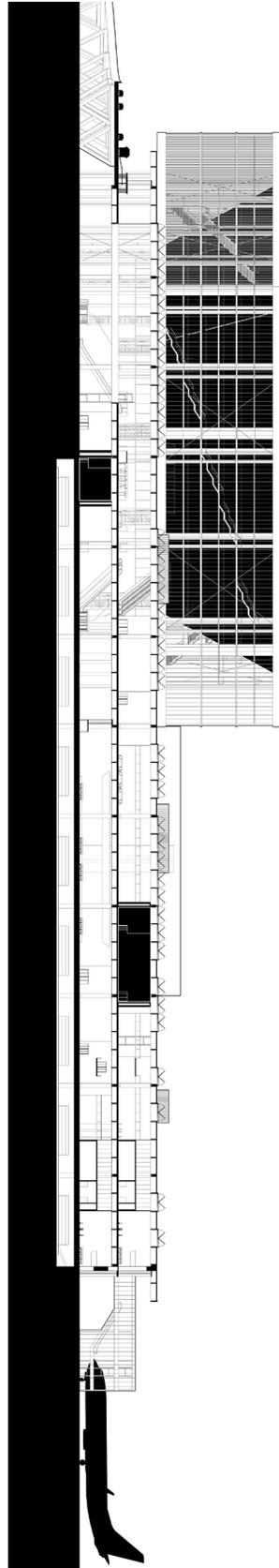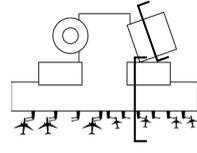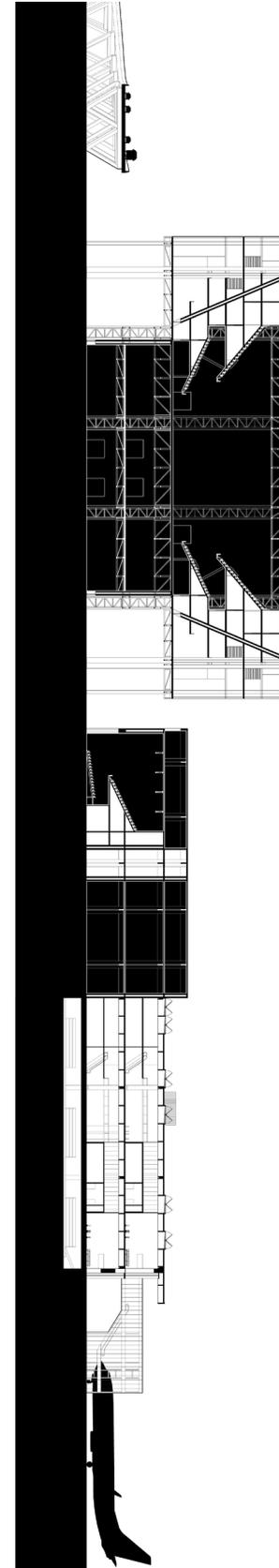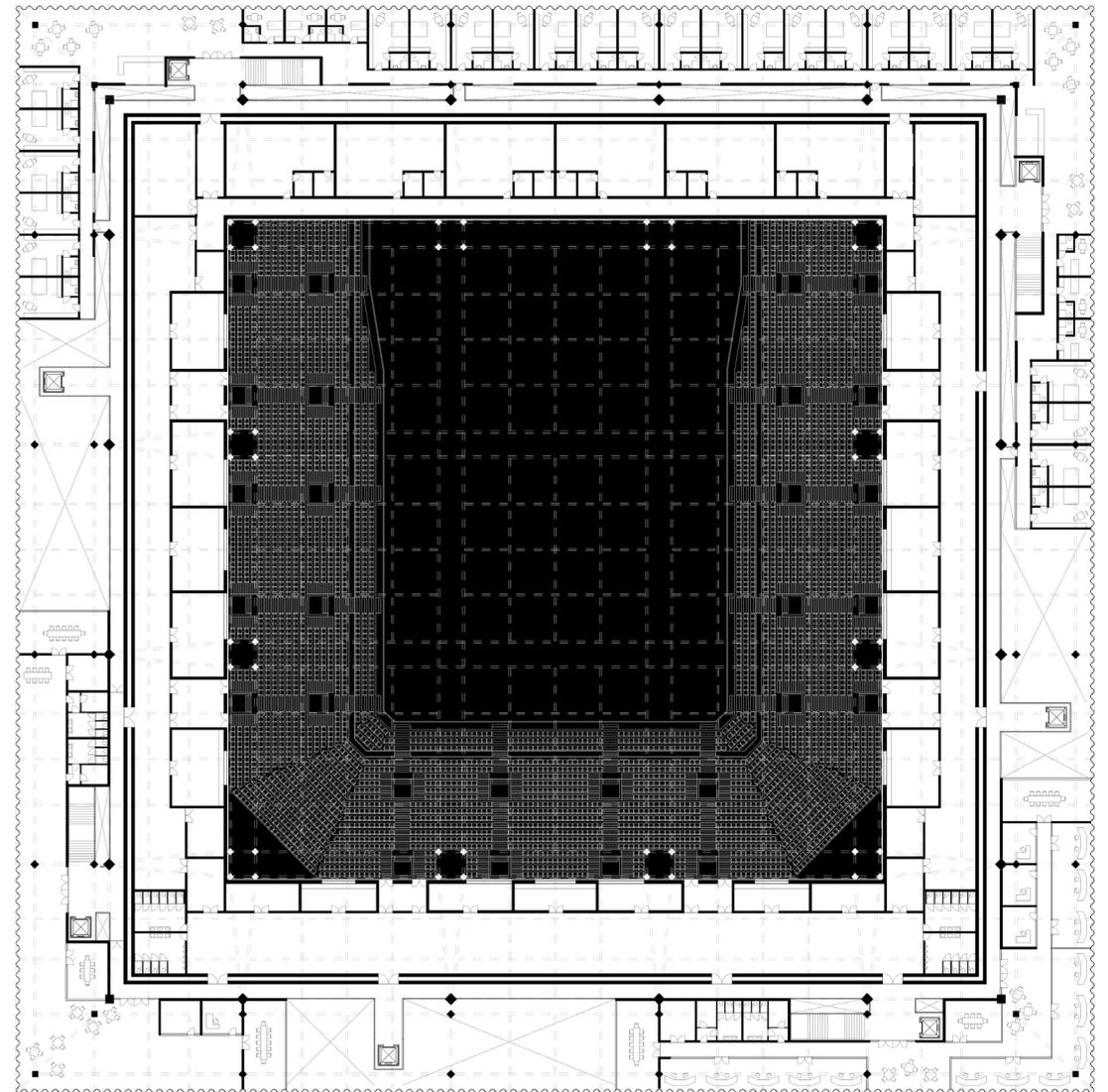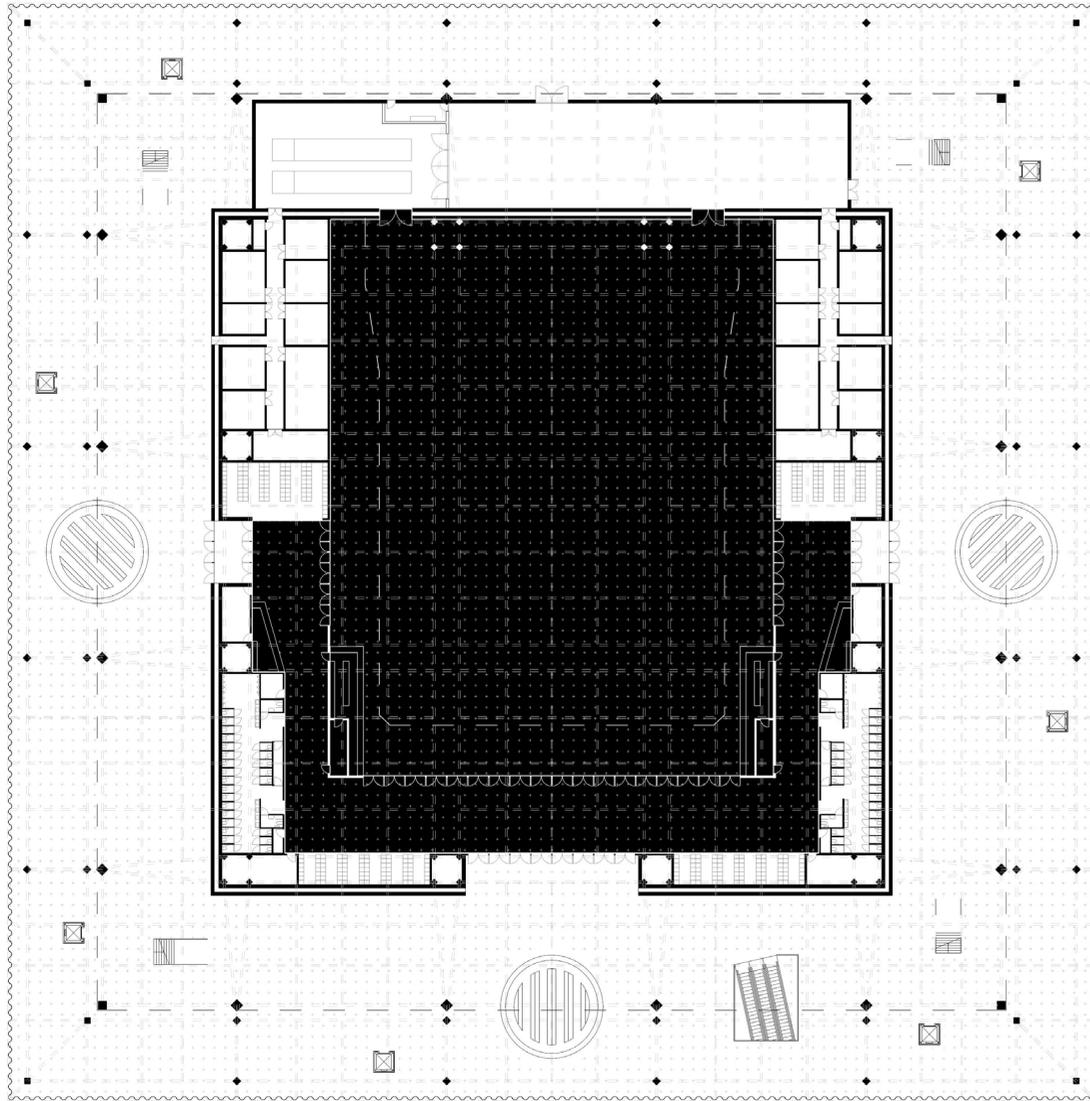
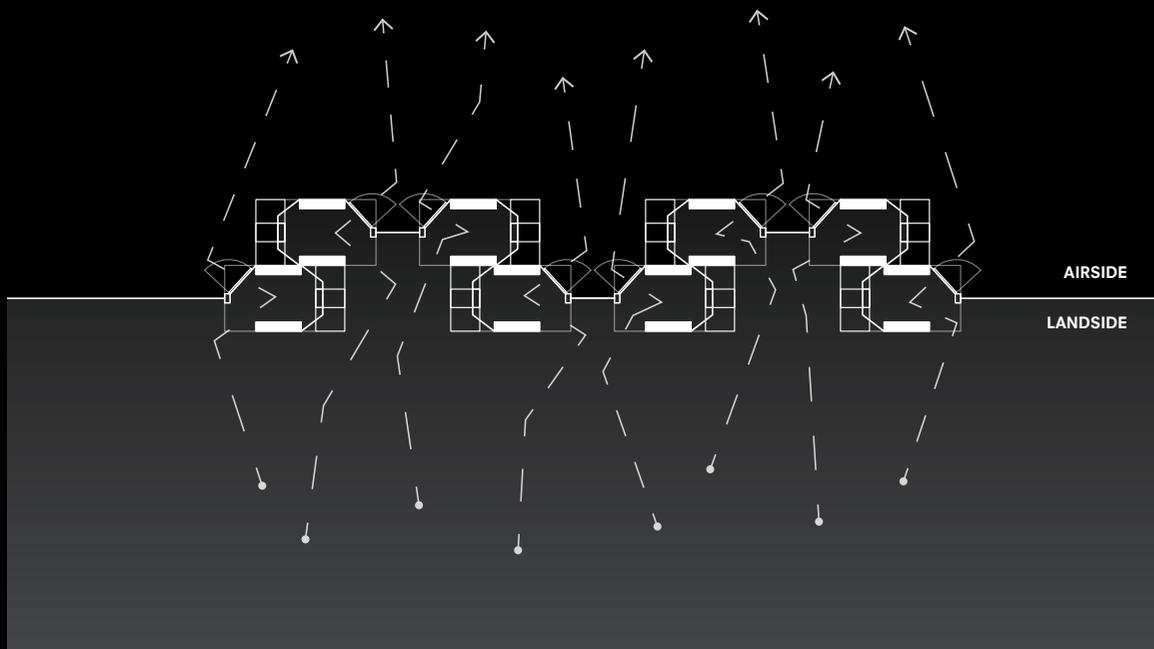## 'Experience Machine' Security

Security Infrastructure

The integration of advanced and decentralized security systems, along with the introduction of multiple access points, marks a significant transformation in the way airports are designed and experienced. By distributing security infrastructure across the terminal in modular units that manage both body and baggage scans efficiently and with reduced staffing needs, the security process becomes embedded, seamless, and far less intrusive.

These smaller, more flexible checkpoints eliminate the traditional congestion points that often create stress for travelers. As a result, the transition from public to secure areas becomes gradual and almost invisible, removing the sense of restriction that has long defined the journey from landside to airside. What emerges instead is a fluid and intuitive environment that promotes ease of movement and a greater sense of comfort.

This shift effectively dissolves the hard boundary between public and secured zones. The airport is no longer only a place of transit but begins to function as a civic space. With areas that can accommodate cultural events, exhibitions, dining, and gathering, the airport becomes part of the public realm.

By rethinking the placement and design of security, the airport typology expands into a multifunctional environment. It supports not only travel but also social interaction, leisure, and discovery, enabling the creation of the 'Experience Machine'.

View from the Idroscalo park: Festival

Visualisations

Front side view

134

Apron side view

135

View from highway
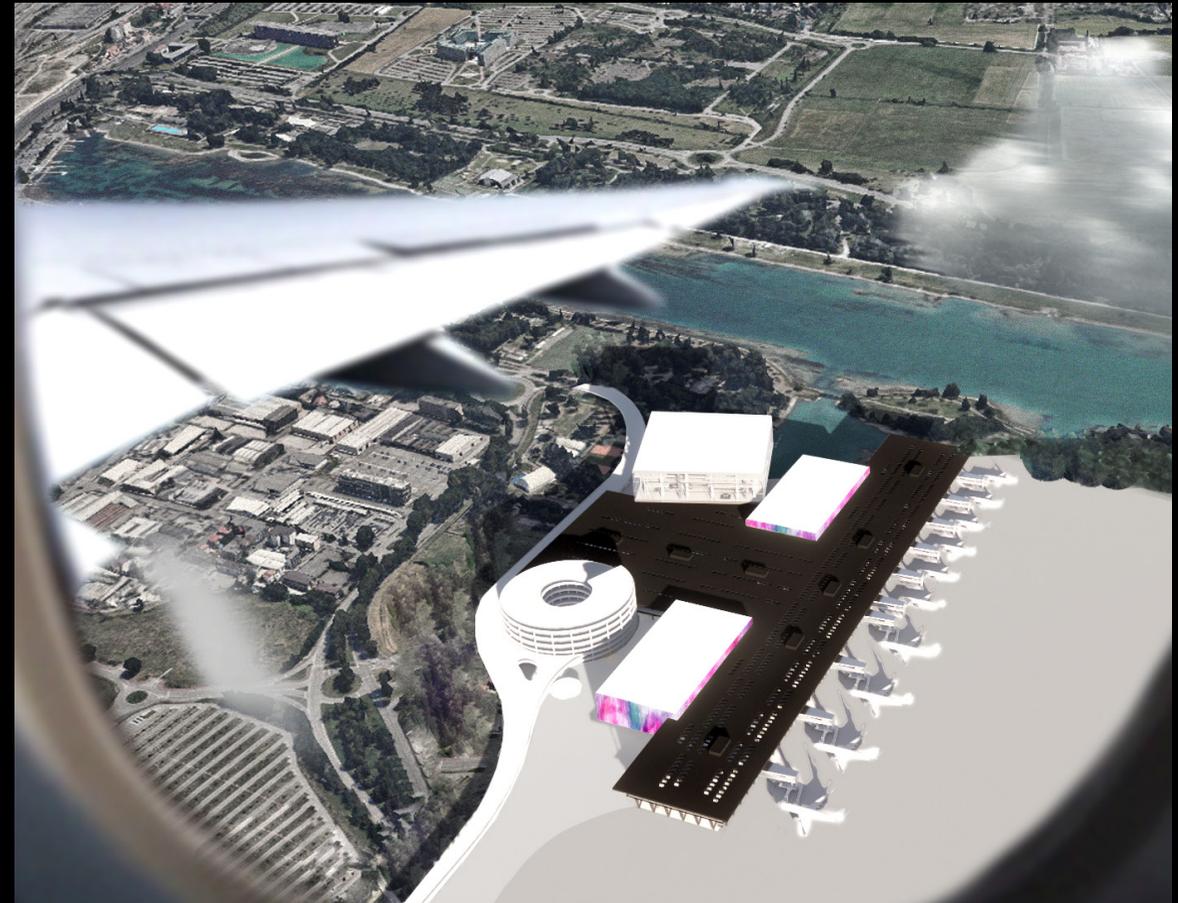
View from plane

Passage axis view

Side entrance view

Gate area unit

Gate area unit: Milan Fashion Week

Visualisations

Gate area first floor

Concourse lockers

Main box conference hall: Milan Design Week

'The box' Foyer

Subbox conference hall: Salone del Mobile

View from the Apron

TECHNICAL
DEVELOPMENT

04

Facade Fragment

DETAIL E

6

DETAIL D

1

DETAIL C

DETAIL B

3

DETAIL A

4

5
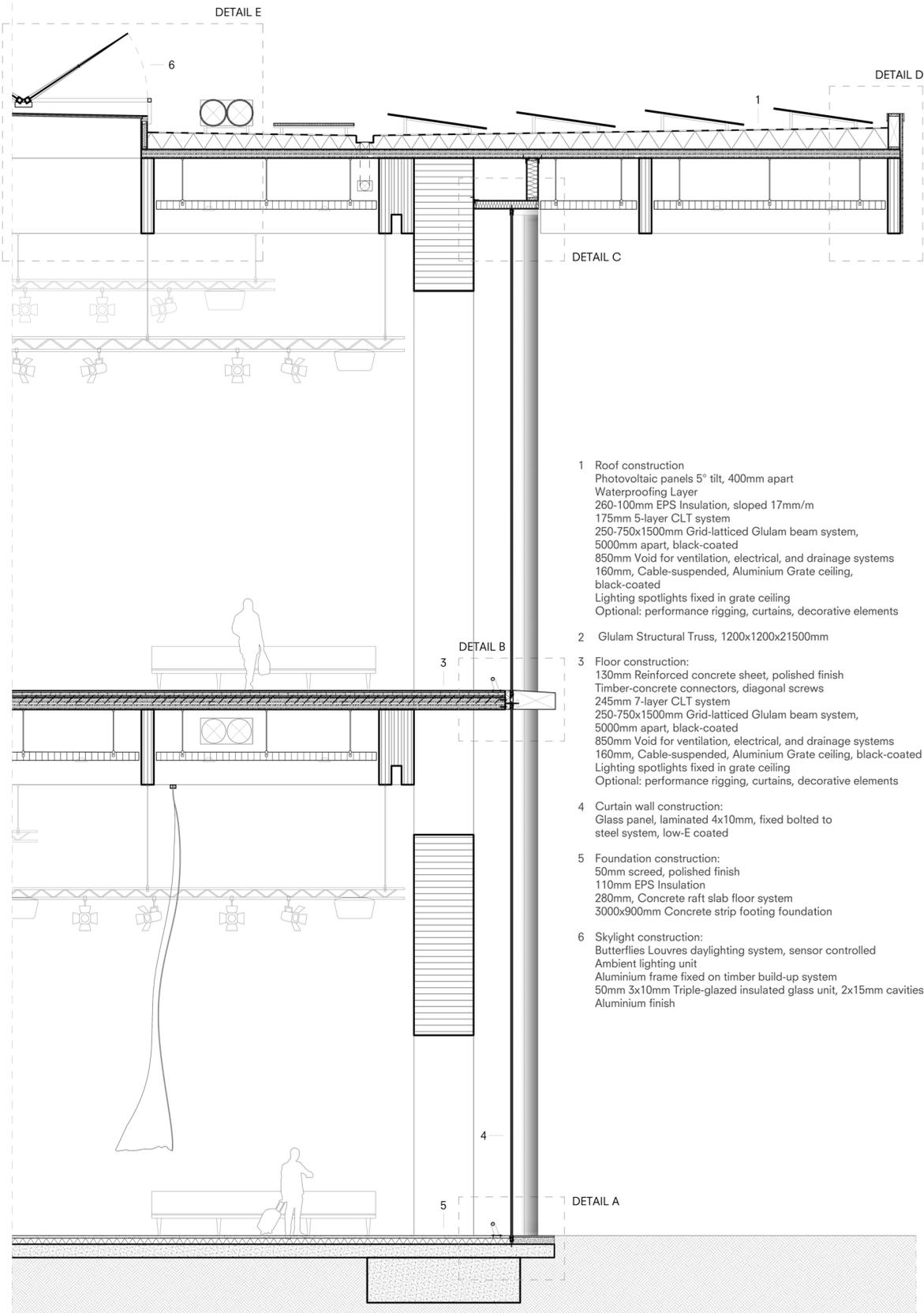
1   Roof construction
    Photovoltaic panels 5° tilt, 400mm apart
    Waterproofing Layer
    260-100mm EPS Insulation, sloped 17mm/m
    175mm 5-layer CLT system
    250-750x1500mm Grid-latticed Glulam beam system,
    5000mm apart, black-coated
    850mm Void for ventilation, electrical, and drainage systems
    160mm, Cable-suspended, Aluminium Grate ceiling,
    black-coated
    Lighting spotlights fixed in grate ceiling
    Optional: performance rigging, curtains, decorative elements

2   Glulam Structural Truss, 1200x1200x21500mm

3   Floor construction:
    130mm Reinforced concrete sheet, polished finish
    Timber-concrete connectors, diagonal screws
    245mm 7-layer CLT system
    250-750x1500mm Grid-latticed Glulam beam system,
    5000mm apart, black-coated
    850mm Void for ventilation, electrical, and drainage systems
    160mm, Cable-suspended, Aluminium Grate ceiling, black-coated
    Lighting spotlights fixed in grate ceiling
    Optional: performance rigging, curtains, decorative elements

4   Curtain wall construction:
    Glass panel, laminated 4x10mm, fixed bolted to
    steel system, low-E coated

5   Foundation construction:
    50mm screed, polished finish
    110mm EPS Insulation
    280mm, Concrete raft slab floor system
    3000x900mm Concrete strip footing foundation

6   Skylight construction:
    Butterflies Louvres daylighting system, sensor controlled
    Ambient lighting unit
    Aluminium frame fixed on timber build-up system
    50mm 3x10mm Triple-glazed insulated glass unit, 2x15mm cavities
    Aluminium finish

Construction:
1   Glulam Structural Truss, 1200x1200x21500mm
2   Ø60mm Stainless steel bump rail

3   Curtain wall construction:
    Corrugated glass panel, 4x10mm annealed, fixed bolted to steel system, low-E coated
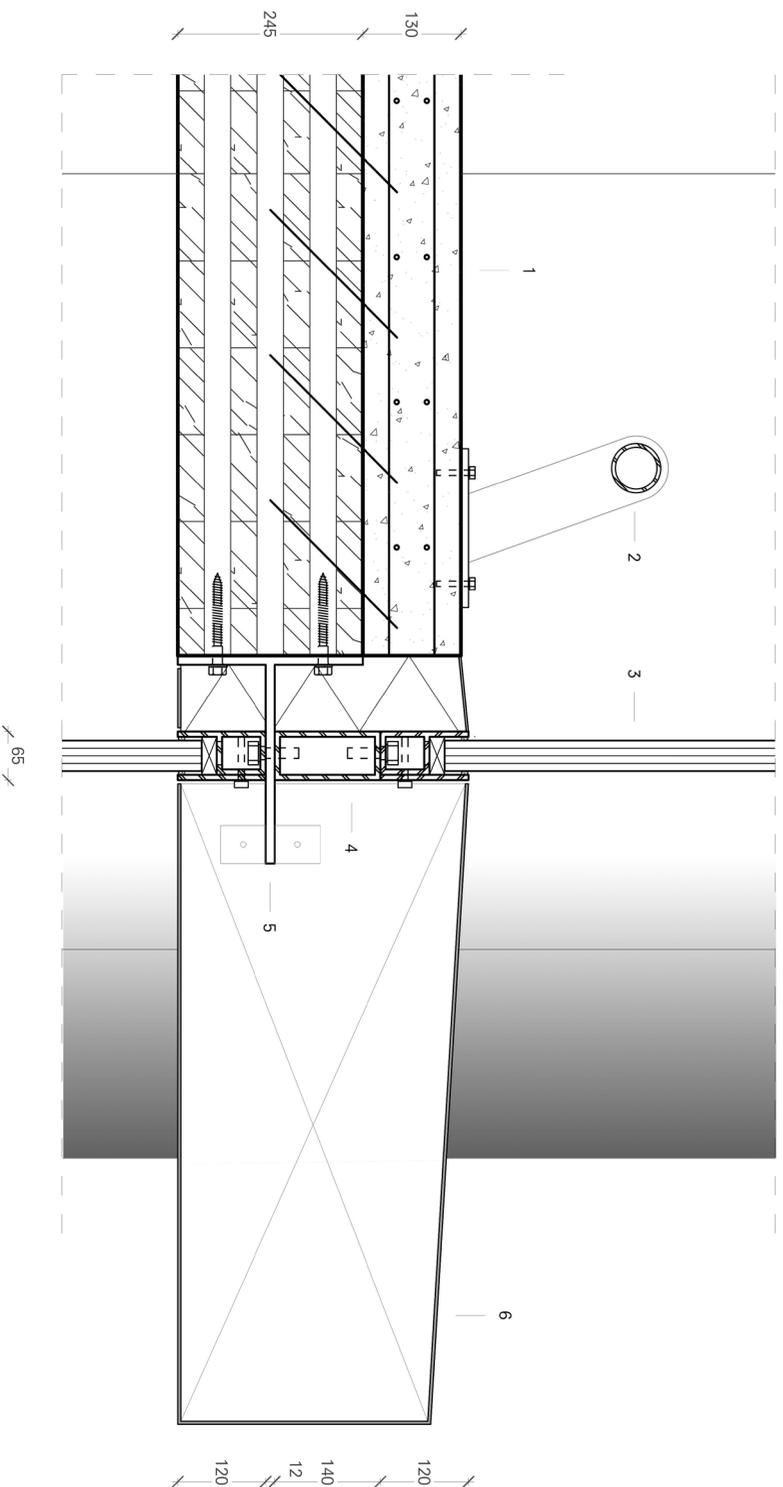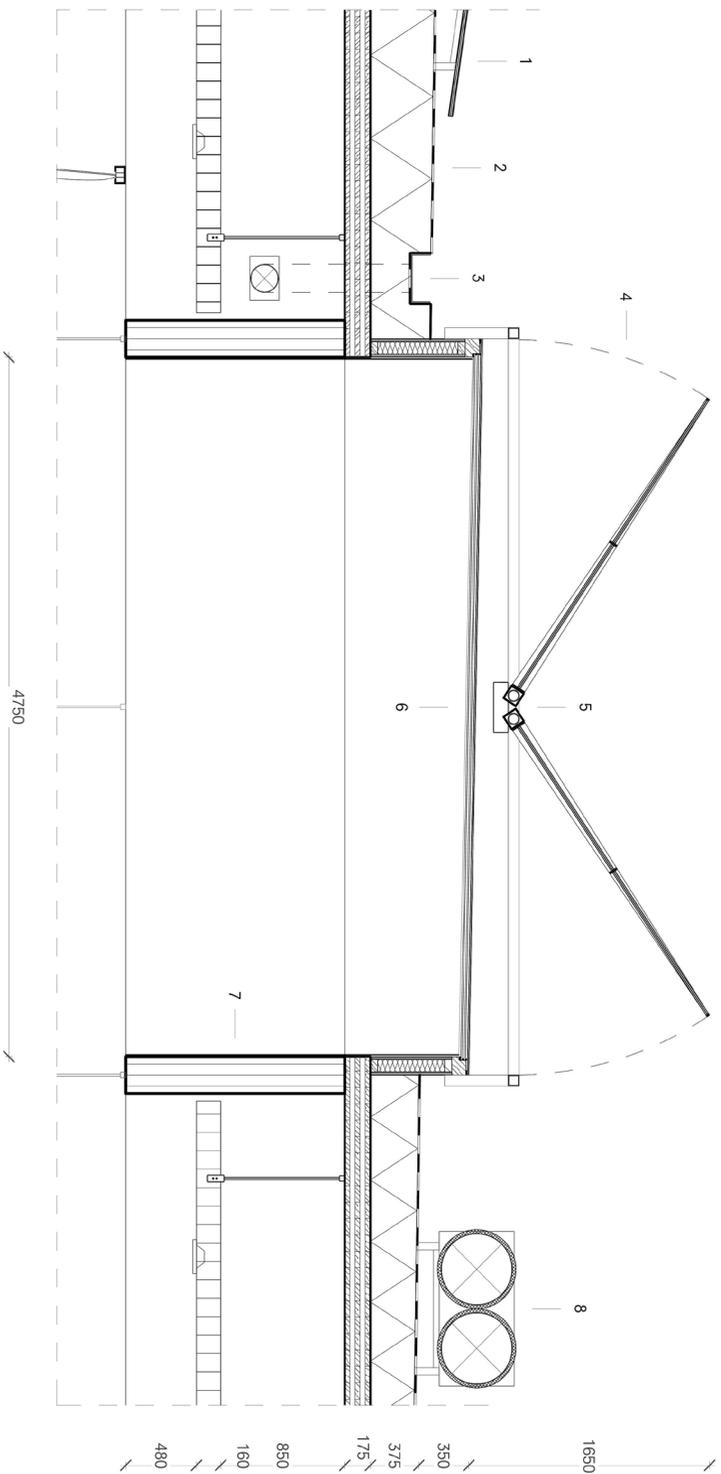4   Steel grating, grout

Foundation construction:
1   50mm screed, polished finish
    110mm EPS Insulation
    280mm, Concrete raft slab floor system
2   Stainless steel bump rail Ø60mm
3   3000x900mm Concrete strip footing foundation

4   Curtain wall construction:
    Corrugated glass panel, 4x10mm annealed, fixed bolted to steel system, low-E coated
5   Stainless steel glass frame system, on mounting frame
6   Steel grating, grout

1 Floor construction:
130mm Reinforced concrete sheet, polished finish
Timber-concrete composite connectors, diagonal screws
245mm 7-layer CLT system
250-750x1500mm Grid-latticed Glulam beams, 5000mm apart, black-coated
2 Stainless steel bump rail Ø60mm
3 Curtain wall construction:
Corrugated glass panel, 4x10mm annealed, fixed bolted to steel system, low-E coated

4 Corrugated steel glass mounting system, bolted on steel t-profile
5 Recurring stainless steel t-profile, attached on CLT floor using screws
6 Aluminium finish profile, attached on T-profile

1 Construction:
Glulam Structural Truss, 1200x1200x21500mm
2 Curtain wall construction:
Corrugated glass panel, 4x10mm annealed, fixed bolted to steel system, low-E coated
3 Insolated timber frame construction, attached to truss system and clt roof

4 160mm, Cable-suspended, Aluminium Grate ceiling, black-coated
Lighting spotlights fixed in grate ceiling
5 Construction:
250-750x1500mm Grid-latticed Glulam beam system, 5000mm apart,
black-coated, cut to seamlessly attach curtain wall
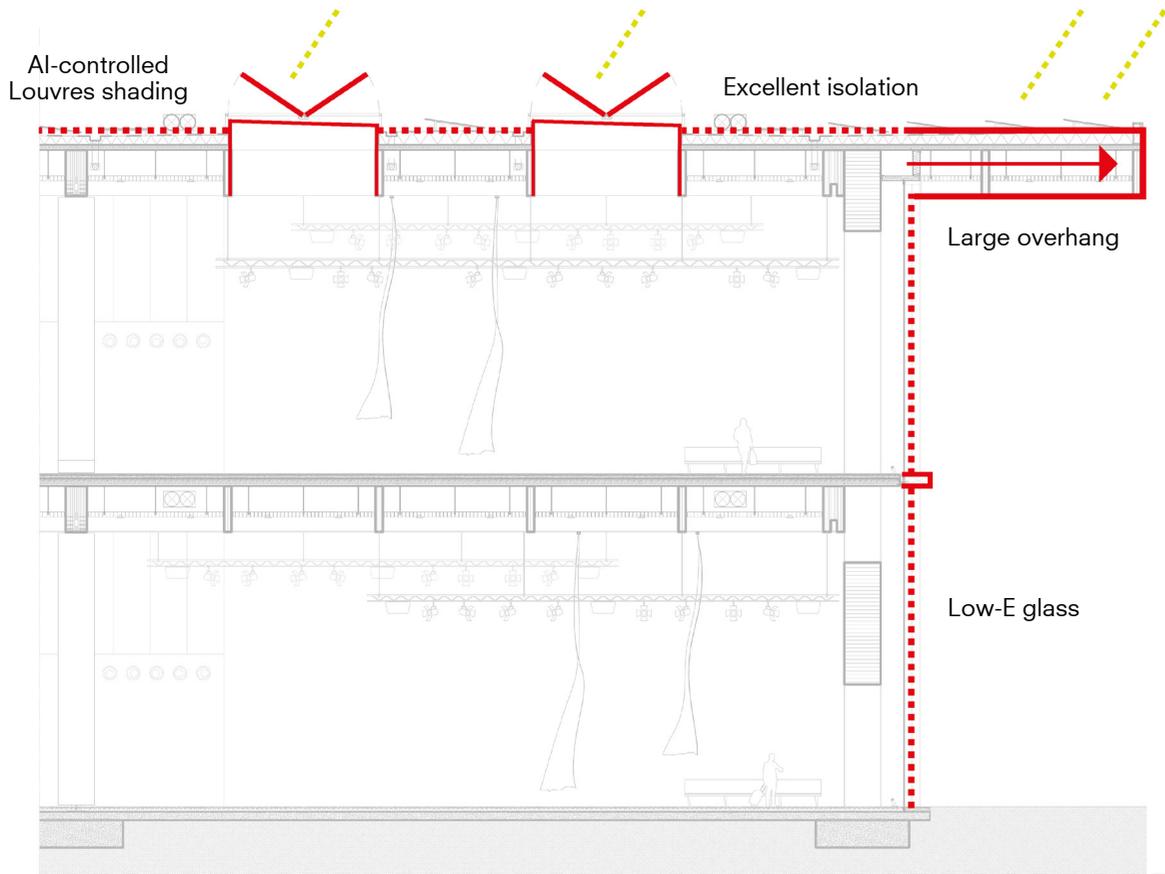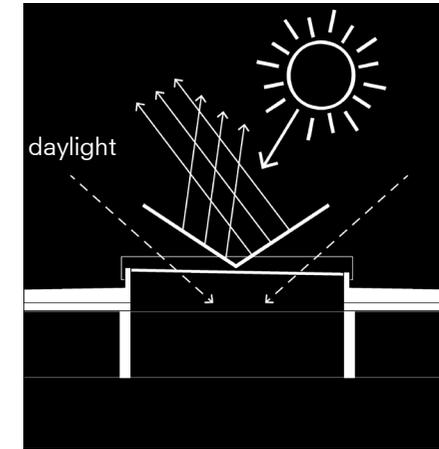
1   Roof construction:
Waterproofing Layer
260-100mm EPS Insulation, sloped 15mm/m
175mm 5-layer CLT system
250-750x1500mm Grid-latticed Glulam beam
system, 5000mm apart, black-coated
160mm, Cable-suspended, Aluminium Grate
ceiling, black-coated
Lighting spotlights fixed in grate ceiling
2   Photovoltaic panels 8° tilt, 600mm apart
3   Aluminium, roof trim, black coated
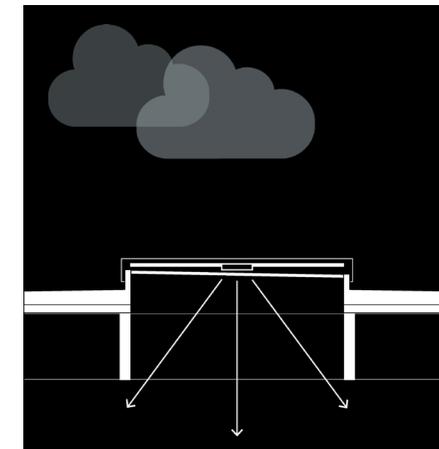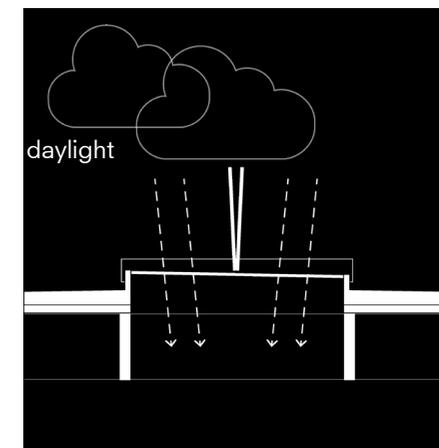4   Douglas Fir cladding, black coated

160
250
1500
175
400
300

1   Photovoltaic panels 8° tilt, 600mm apart
2   Roof construction:
Waterproofing Layer
260-100mm EPS Insulation, sloped 15mm/m
175mm 5-layer CLT system
250-750x1500mm Grid-latticed Glulam beam
system, 5000mm apart, black-coated
160mm, Cable-suspended, Aluminium Grate
ceiling, black-coated
Lighting spotlights fixed in grate ceiling
3   320x120mm Aluminium drainage system
4   Skylight construction:
Butterflies Louvres daylighting system, AI & sensor controlled
Aluminium frame fixed on timber build-up system
5   Ambient lighting unit
6   50mm 3x10mm Triple-glazed insulated glass unit, 2x15mm cavities
7   Aluminium reflecting finish
8   Ø500mm Insulated mechanical ventilation vents

4750
480
160
850
175
375
350
1650

Solar Heat Control

AI-controlled Louvres shading

Excellent isolation

Large overhang

Low-E glass

Butterfly Louvres

daylight

SUNSHINE
Clear sky

NIGHT
Ambient light on

daylight

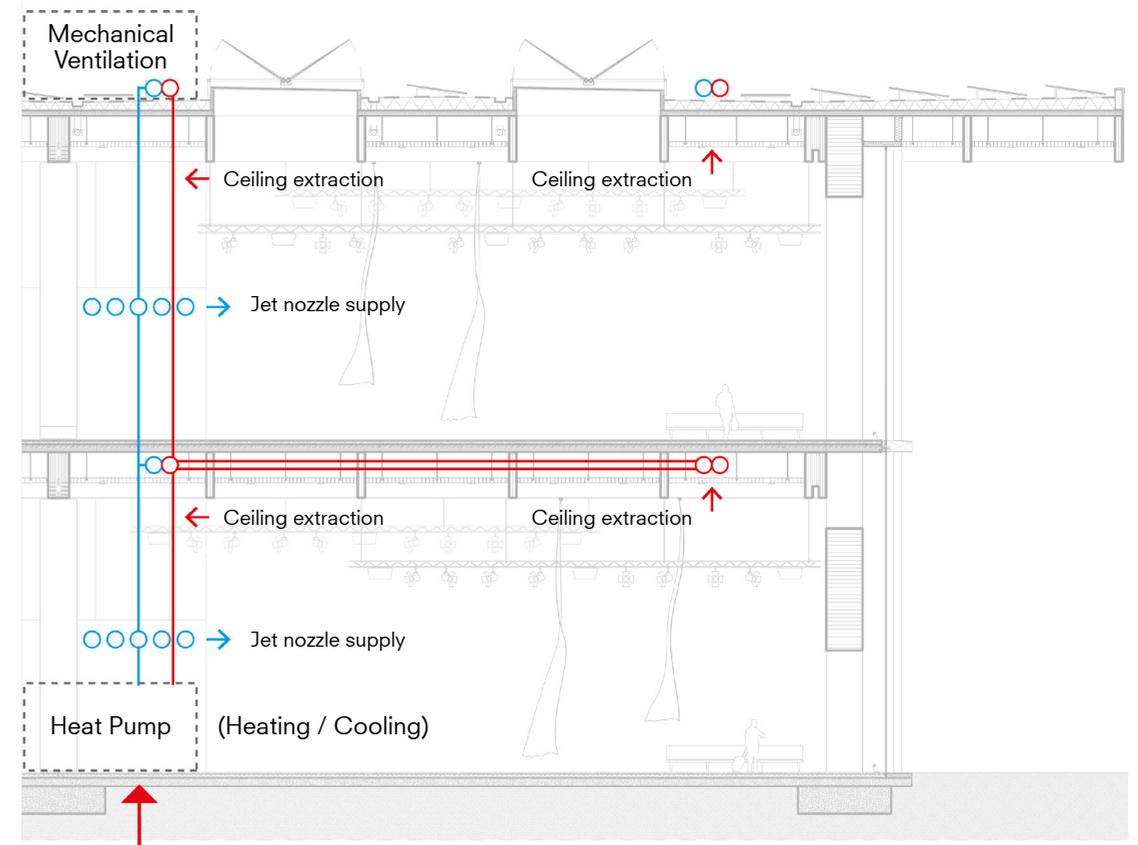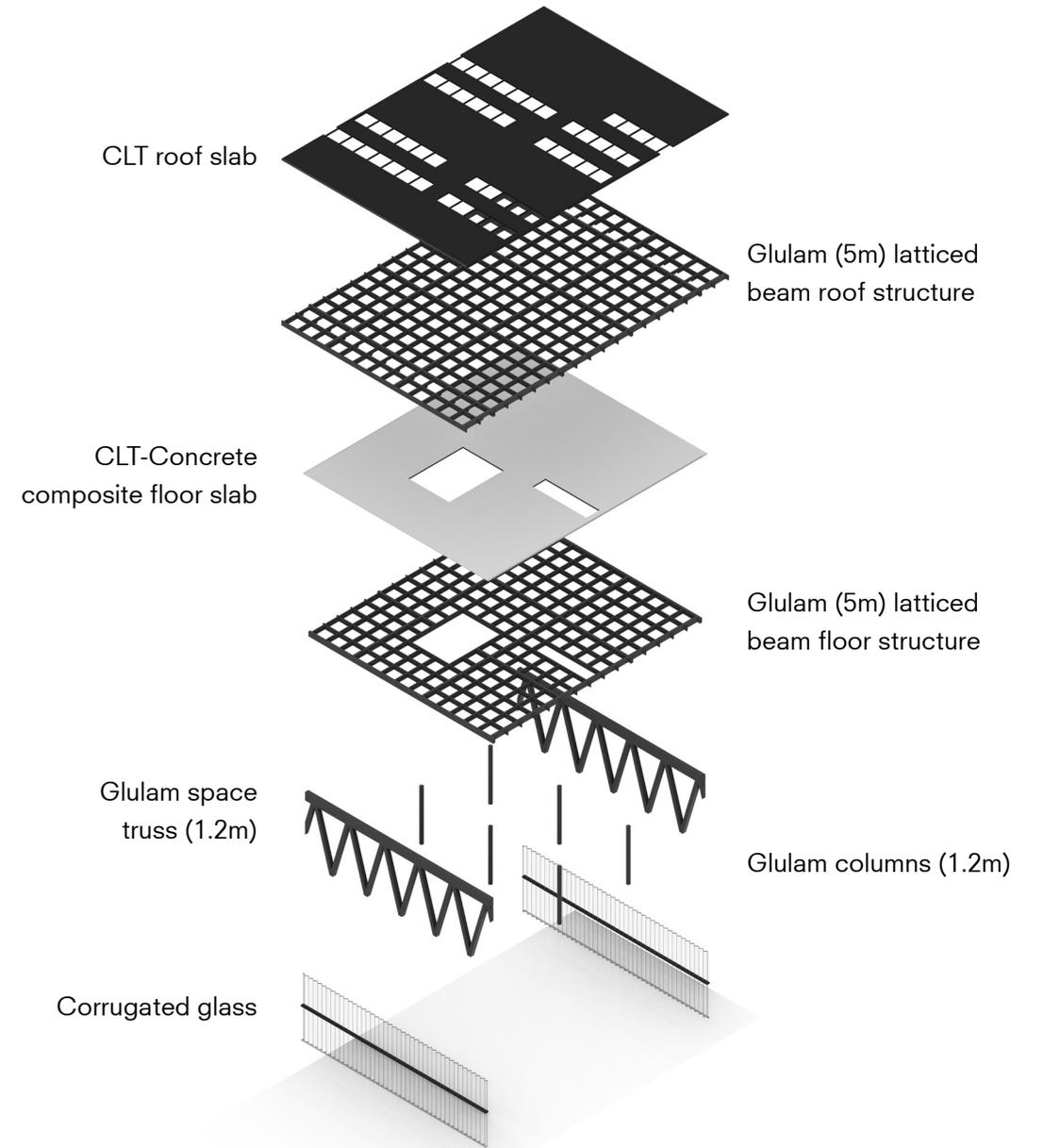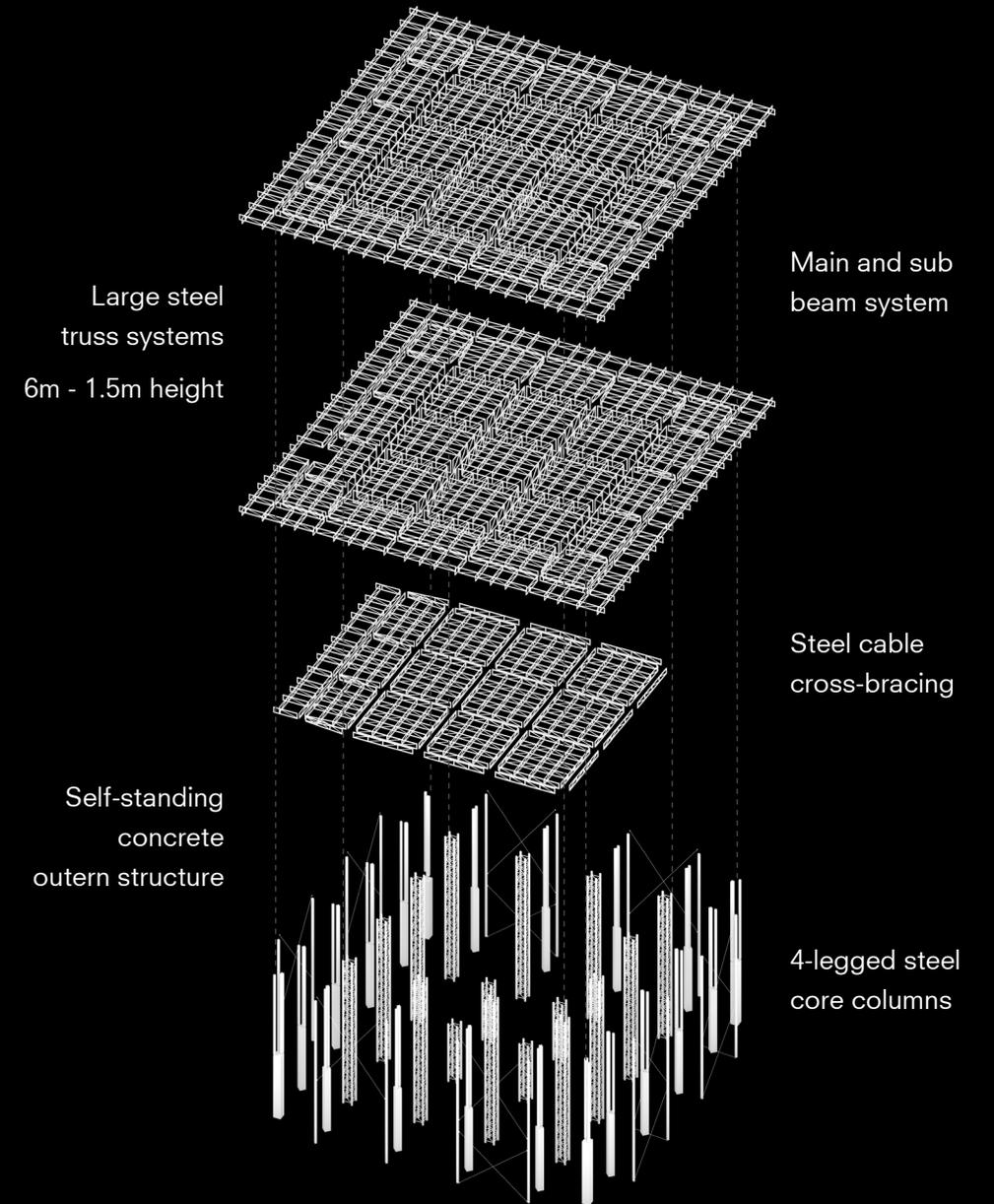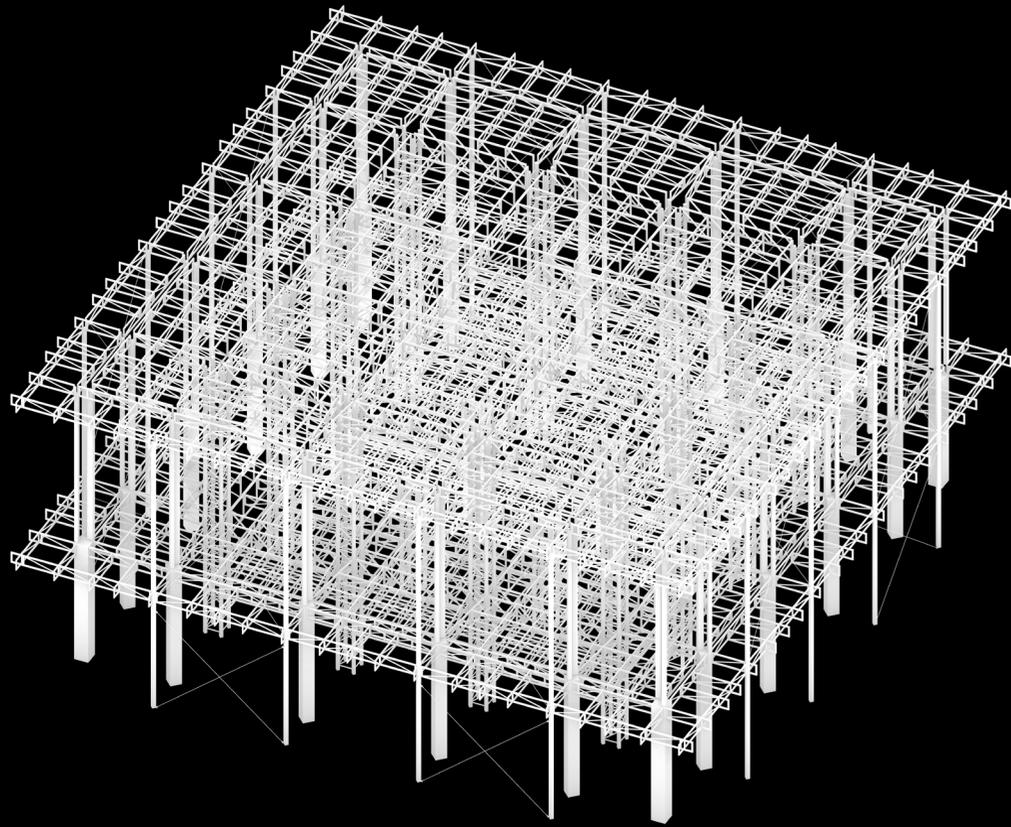**CLOUDY**
Overcast sky

Energy Generation

PV-panels

Application

Renewable energy

Application

Battery backup bank

Feed electric grid

Ventilation

Mechanical
Ventilation

Ceiling extraction   Ceiling extraction

Jet nozzle supply

Ceiling extraction   Ceiling extraction

Jet nozzle supply

Heat Pump   (Heating / Cooling)

Milan industry District Heating Grid (Heating)

Main Construction Isometric

CLT roof slab

Glulam (5m) latticed beam roof structure

CLT-Concrete composite floor slab

Glulam (5m) latticed beam floor structure

Glulam space truss (1.2m)

Glulam columns (1.2m)

Corrugated glass

Box Construction Isometric

Large steel
truss systems

6m - 1.5m height

Self-standing
concrete
outern structure

Main and sub
beam system

Steel cable
cross-bracing

4-legged steel
core columns

CONCLUSION

05

Conclusion

The design of Aeroporto Fiera Milano Linate presents a new vision for what an airport can be within the context of a contemporary city. Conceived entirely from the ground up, the project breaks away from traditional airport models and introduces a building defined by openness, flexibility, and broad functionality.

At its core lies a strong axis connecting Milan's city center directly to Idroscalo Park. This continuous public route structures the building and allows it to function not only as a point of transit but as a destination in its own right. Along this axis, multiple entrances and event zones are positioned to welcome both travelers and local visitors, integrating the airport into the daily life of the city.

The building is designed to host all types of events, from small gatherings to large-scale performances and international conferences. The central concourse acts as a flexible and atmospheric space, much like a festival ground, where lightweight and temporary structures can be installed and reconfigured with ease. Surrounding this concourse are more permanent volumes, including dedicated halls and a large multifunctional 'box' with a arena stage that can accommodate concerts, exhibitions, conferences, and a range of cultural and commercial programs. Two concert halls are designed to open directly onto the main axis, blurring the line between inside and outside and allowing for large outdoor events to unfold along the building's spine.

Flexibility is key. Spaces are modular, adaptable, and interconnected. Gate areas can be closed off and repurposed as pop-up shops or event rooms. Baggage systems, lockers, and service spaces are smartly integrated to support both travel and event use. The architecture enables rapid transformation depending on need, time of day, or type of user.

Security is rethought as a decentralized system, with multiple smaller checkpoints that reduce stress and create a more fluid transition between zones. This approach removes the conventional hard boundary between landside and airside, enhancing the open character of the building.

Developed within the Complex Projects graduation studio at TU Delft under the Bodies and Building theme, the project forms part of a wider urban vision. It connects with other large-scale building designs across Milan that aim to improve and activate the city through architecture. Each of these designs responds to a different urban role, but all share a commitment to adaptability, inclusivity, and public engagement.

Aeroporto Fiera Milano Linate is more than an airport. It is a dynamic environment for exchange and activity. Through its flexible structure and rich programmatic layers, it becomes a space for travel, performance, leisure, and gathering. A building that transforms to meet the changing needs of the city and its people, a satellite to Milan's culture and an 'Experience Machine.'

Bodies & Building Milan

Aeroporto Fiera Milano Linate

Airport Experience Machine

Complex Projects

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TUDelft