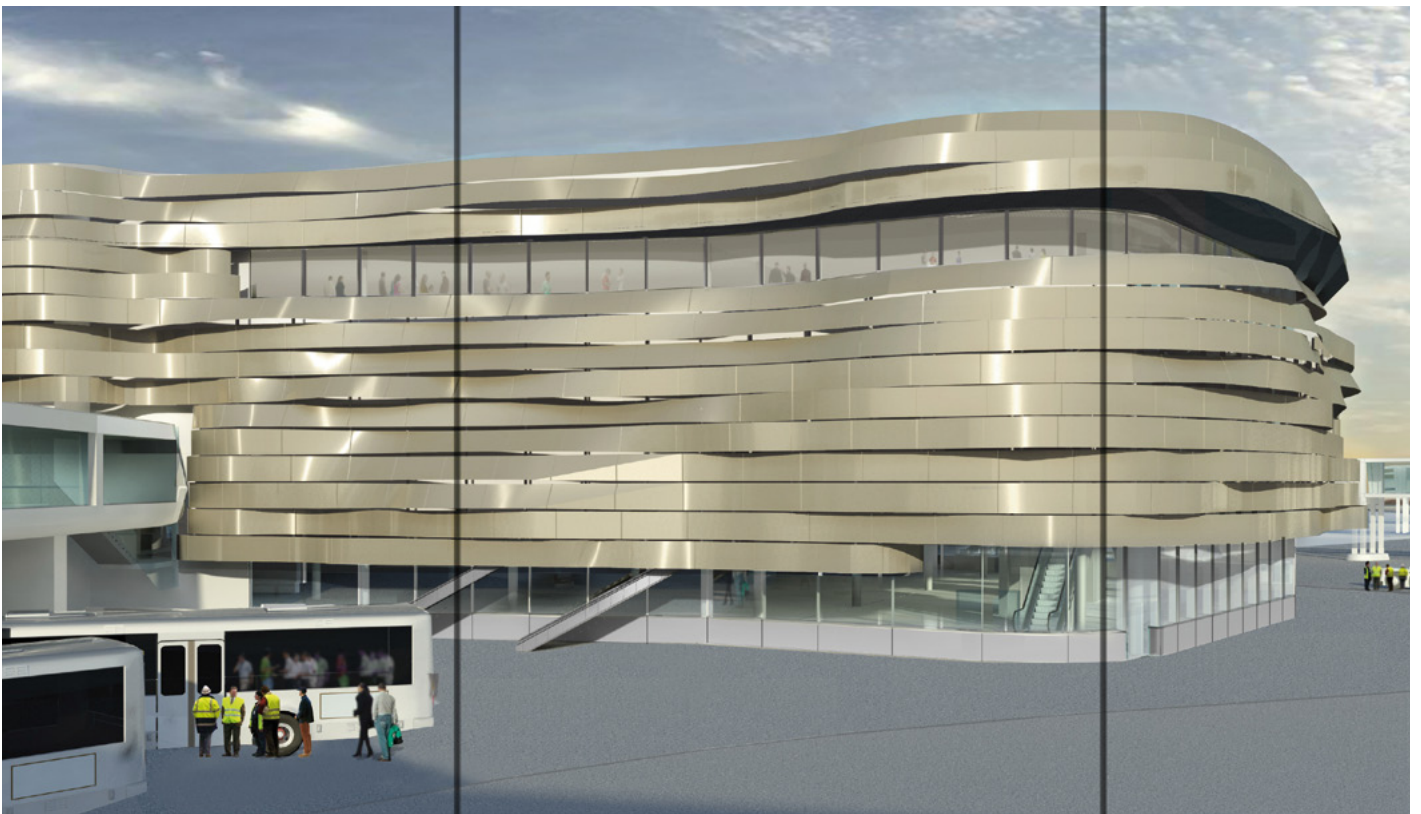


# FOR A MORE COMFORTABLE AND SEAMLESS EXPERIENCE FOR PASSENGERS

Aéroports de Paris is adding more than 16,500 m<sup>2</sup> of floor area in the heart of terminals 2A and 2C at Paris-Charles de Gaulle airport



[01] DEVELOPING EXISTING INFRASTRUCTURES IS A STRATEGIC PRIORITY

[02] A BUILDING TO IMPROVE SPACE AND COMFORT AND EASE  
PASSENGER FLOW

RUNWAY LEVEL

3,400 M<sup>2</sup> DEDICATED EXCLUSIVELY TO PASSENGER CONTROL

LEVEL 1

AN EXPANDED RETAIL OFFER: 2,300 M<sup>2</sup> OF ADDITIONAL BARS AND SHOPS  
UNIFORM ARCHITECTURE

LEVEL 2

3,300 M<sup>2</sup> OF AIRLINE LOUNGES WITH A VIEW ONTO THE RUNWAYS

[03] CONNECTING TERMINALS 2A AND 2C: A DARING ARCHITECTURAL  
APPROACH

A BUILDING DECORATED WITH RIBBONS  
AN ELEGANT AND BRIGHT INTERIOR ATMOSPHERE

[04] THE CONNECTING BUILDING IS THE FIRST PHASE OF A PROJECT  
AIMING AT COMPLETELY RENOVATING TERMINALS 2A AND 2C

APPENDIX:

AÉROPORTS DE PARIS AT A GLANCE

AC CONNECTING BUILDING DATA SHEET

PARIS - CHARLES DE GAULLE: KEY DATES OF A SUCCESSFUL TRANSFORMATION



*"After an initial investment plan between 2006 and 2010 that mainly focused on the capacities of Paris-Charles de Gaulle – inauguration of La Galerie Parisienne, new 2E concourse and terminal 2G - Aéroports de Paris is launching a vast programme over the next five years to modernize its oldest facilities. The connecting building between terminals 2A and 2C is the first step, with the main purpose to provide passengers with more space and a seamless experience. This new building will bring a real gain in time and comfort," explains Pierre Graff, Chairman & CEO of Aéroports de Paris.*

## DEVELOPING EXISTING INFRASTRUCTURES IS A STRATEGIC PRIORITY

After a first phase of creating capacities to support the growth of air traffic (25 million capacity increase between 2006 and 2010), Aéroports de Paris is now orienting its investments toward improving quality of service, mainly through the renovation of its oldest facilities.

Paris-Charles de Gaulle terminals 2A and 2C, inaugurated in 1982 and 1993 respectively, must now adapt to new challenges and airport constraints, but especially meet the new expectations of passengers and airlines in terms of services. Security requirements and passenger checks – police checkpoints and hand baggage control – have also profoundly modified the way people travel and require the rethinking of terminal space management.

That's why Aéroports de Paris is launching a vast programme to redevelop these two terminals, as was done between 2004 and 2009 for the central body of terminal 1, and as will also be the case in the coming years for terminal 2B.

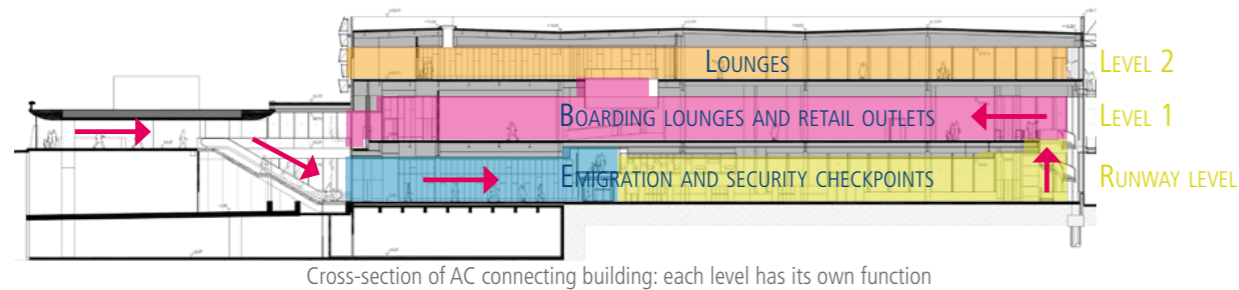
The first step of this work is the construction of a building that will interconnect terminals 2A and 2C, for an expected investment of 71 million euros for a commissioning scheduled for the second half of 2012. With its 16,600-m<sup>2</sup> floor area, this connection building will free up space in the public area and will allow a complete rethinking of the operating modes of these two terminals. By 2013, they will offer a more fluid passenger route, better quality of service, and a more pleasant waiting time for connecting passengers.



The AC connecting building lies between terminals 2A and 2C

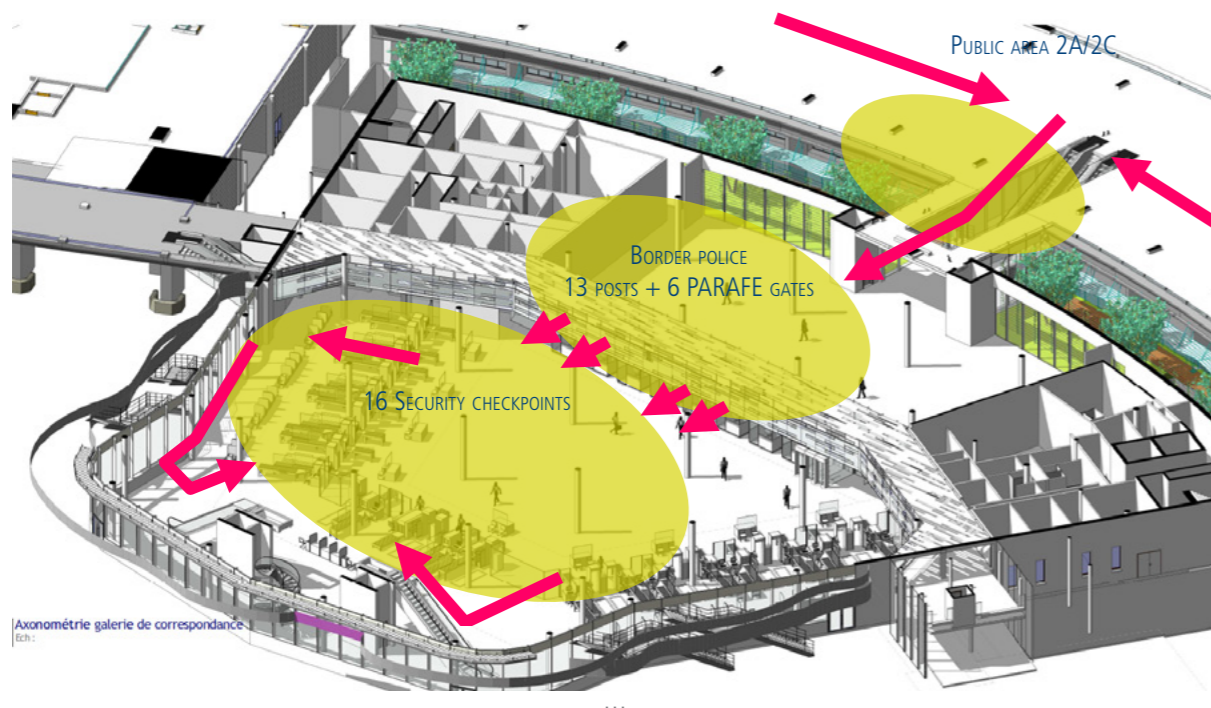
## A BUILDING TO IMPROVE SPACE AND COMFORT AND EASE PASSENGER FLOW

In this central building, each level will have its own, clearly identifiable function for easy passenger orientation: checkpoint operations on the ground level, a vast retail and service area on the 1<sup>st</sup> level, and airline lounges on the top level.



### RUNWAY LEVEL

3,400 m<sup>2</sup> dedicated exclusively to passenger control  
 Departing passengers will check in their baggage in their respective terminals, 2A or 2C, and with their boarding pass, they will go to the connecting building to go through border control and security.



The connecting building will make these checks more fluid by concentrating them at a single point. This area will have new screening checkpoints, designed to make this step easier for passengers, as well as PARAFE security gates (see box). This level will have up to 13 police checkpoints and 16 security checkpoints, including optimized allocation of police and screening resources and shorter processing times.



**PARAFE**  
 AUTOMATED FAST TRACK BORDER CROSSING

**P**ARAFE allows passengers to get through border-crossing formalities faster and independently using biometrics technology based on passport and digital fingerprint reading. Passengers of full age that are citizens of the European Union, the European Economic Area or the Swiss Confederation can register in a few minutes with the border police in one of the registration spaces set up in the Paris airport terminals. Once registered, they simply go through the PARAFE gates for both arrivals and departures and cross the border in less than 30 seconds. 60,000 people are already registered. Paris airports currently have 15 PARAFE gates and 9 others are expected to open soon.

## LEVEL 1

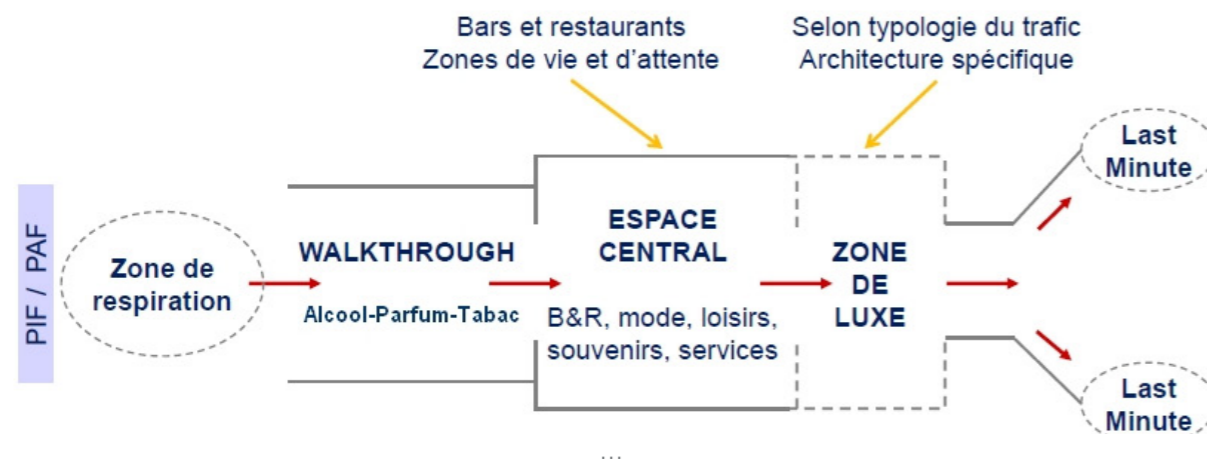
### AN EXPANDED RETAIL OFFER: 2,300 M<sup>2</sup> OF ADDITIONAL BARS AND SHOPS

Before going to their boarding lounge, passengers can enjoy an expanded retail offer with an innovative design.



### UNIFORM ARCHITECTURE

Aéroports de Paris' ambition is to become the European benchmark for travel retail by 2015, in terms of economic performance, innovation and customer satisfaction. Aéroports de Paris will implement, in all its terminals (recent or completely renovated) a new organisation model for its retail areas. Each space will be laid out and standardized in terms of density, customer route, and integration of living and waiting areas.



## NEW-GENERATION RESTROOMS

### A FIRST: A "DEPARTMENT STORE"

#### WALKTHROUGH

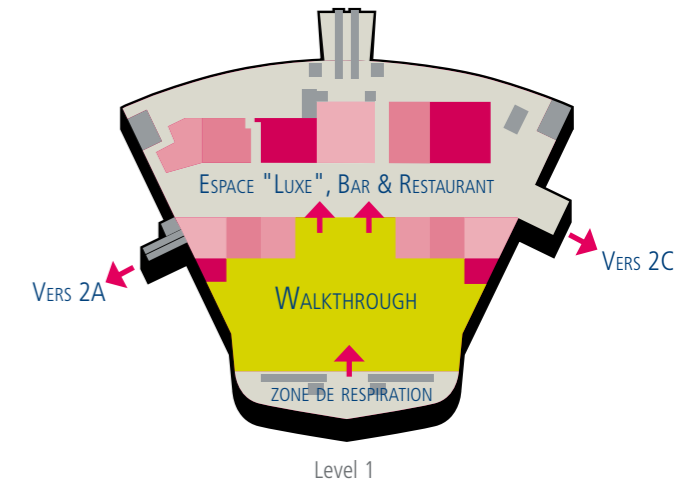
For the AC connecting building, this organisational model implies a paced customer route with firstly a "department store" walkthrough where customers will be at the heart of the retail offer: wines & spirits, cigarettes, perfume, lifestyle and gourmet foods. This 1,300 m<sup>2</sup> floor area will allow passengers to enjoy one last Parisian shopping spree before flying away.

This Beauty and Lifestyle department store will be followed by a "luxury" space in which a 100 m<sup>2</sup> Caviar House & Prunier sales outlet is already planned. As for the other stores, Aéroports de Paris is in contact with the players already operating at Paris-Charles de Gaulle airport Terminal 2E, and with other brands, among which the world leaders in luxury.

Passengers can then either go to Terminal 2A or 2C, as the boarding lounges are now interconnected.

This level also includes a 250 m<sup>2</sup> central restroom block which will be equipped with Aéroports de Paris new-generation toilets.

This new toilet concept, more ergonomic and attractive, includes more spacious booths and high-quality material that is easier to clean. The architects also opted for a contemporary atmosphere with carefully designed lighting.



## LEVEL 2

### 3,300 M<sup>2</sup> OF AIRLINE LOUNGES WITH A VIEW ONTO THE RUNWAYS

The construction of the AC connecting building will also meet airline needs: provide large lounges for their customers. On the last level, their passengers can enjoy 3,300 m<sup>2</sup> of lounge space, with a view onto the runways and Paris in the distance.

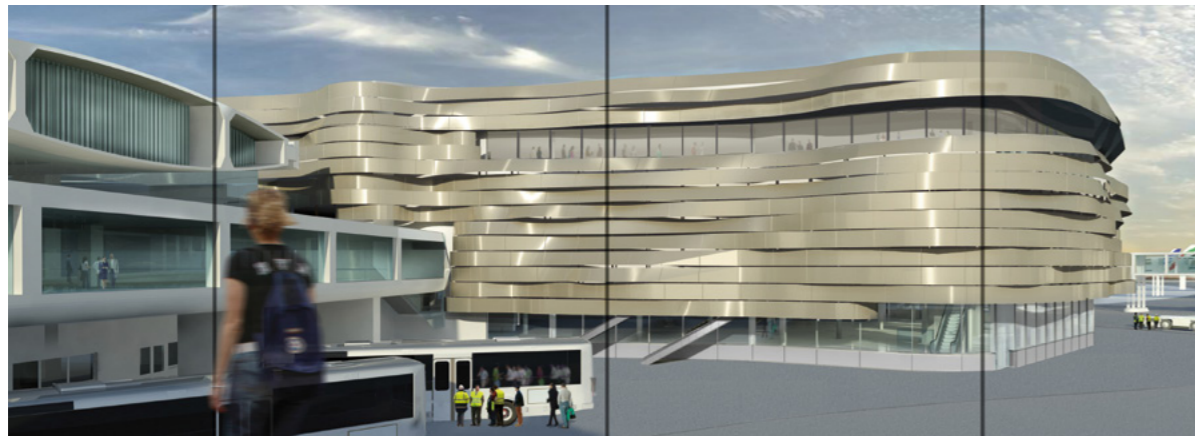


## CONNECTING TERMINALS 2A AND 2C: A DARING ARCHITECTURAL APPROACH

The new connecting building will not only offer passengers more comfort. It will also have its own identity, with an original exterior architecture and a calm, peaceful interior atmosphere.

### A BUILDING DECORATED WITH RIBBONS

A contest was launched for the Aéroports de Paris architectural teams to determine what the facade of the building should look like. Several proposals were presented to general management, which opted for a futuristic external architecture consisting of metal ribbons (photo). The decision was based on a number of criteria: its plasticity, its flexibility and its role as both a "sunscreen" and a decoration.



*"This metal "body suit" is the building's signature. It evokes a building that is moving, fluid and light, in sharp contrast with the rigidity of the concrete of the existing terminals, and that provides warm light for passengers that changes with the time of day," explains Marc Fidelle, chief architect of the Aéroports de Paris project.*

As the building's second skin, these flexible metal ribbons cloak each of its facades. This flexible system allows users to see the aircraft from the lounges and it offers a number of different views of the building depending from where you look at it.



### AN ELEGANT AND BRIGHT INTERIOR ATMOSPHERE

The materials chosen allow passengers to enjoy comfort, warmth and light. The goal is to create a quiet, peaceful atmosphere.

Every shade of white:

The external glazed facades allow passengers to see the planes from every level of the building.

In the building, in order to attract light, the finishing materials are also mainly white, bright and reflective (e.g. marble floor, interior decoration, etc.).

### A CHECKPOINT AREA WITH TOUCHES OF COLOUR

In the checkpoint areas, at runway level, passengers can discover a bright openwork ceiling consisting of floating plates that are alternately close together and far apart. These panels allow the acoustics of the space to be controlled. Warm colours are used for the volume located above the false ceiling. The colour scheme of the ceiling was designed by visual artist Alain Bony (who also worked on the Quai Branly museum).

"The technical networks are coloured red, gold or orange. The idea is to evoke a sophisticated clockwork mechanism. Passengers see something that is alive and colourful. The goal is to surprise and astonish them", explains Marc Fidelle.





#### ELEGANCE AND REFINEMENT ON THE RETAIL LEVEL

Elegance and quality were also priorities in the choice of materials on this level: marble floor, bright ceiling and storefronts decorated with lacquered steel combine to offer passengers a peaceful and warm atmosphere.

Access to the lounges at the top level is via a vast atrium that opens onto the lower level of the building. The white walls of the atrium are covered with bright padded panels.



#### OUTDOOR DESIGN AND GARDENS

The building is connected to the terminals by a completely glazed junction bridge with a peaceful view of an 8 meter wide interior garden. This touch of green also contributes to the building's relaxing atmosphere.

#### HQE APPROACH, "CLEAN" WORKSITE AND RAINWATER RECYCLING LEAD THE WAY

Aéroports de Paris follows the High Environmental Quality (HQE) approach for the construction of the building connecting Terminals 2A and 2C. This approach consists in reducing environmental impacts, from design to construction of the building. It translates one of the commitments taken by Aéroports de Paris following the Grenelle de l'Environnement (French environmental round table).

- › The external metal ribbon facing that surrounds the facade enables a 20% decrease in energy consumption thanks to the heat generated by the sun.
- › A pilot initiative was implemented to collect and reuse rainwater. Two tanks of 35,000 litres each will collect the water from the 4,500 m<sup>2</sup> roof area to supply the water distribution network for the restrooms and water the flowered outdoor plots.
- › The HQE approach also takes the impacts generated during building construction into account: waste, energy consumption and water. It also involves cleaning the trucks to avoid spreading dirt across the areas, and recycling of all waste.

## THE CONNECTING BUILDING IS THE FIRST PHASE OF A PROJECT AIMING AT COMPLETELY RENOVATING TERMINALS 2A AND 2C

### 2<sup>ND</sup> HALF 2012

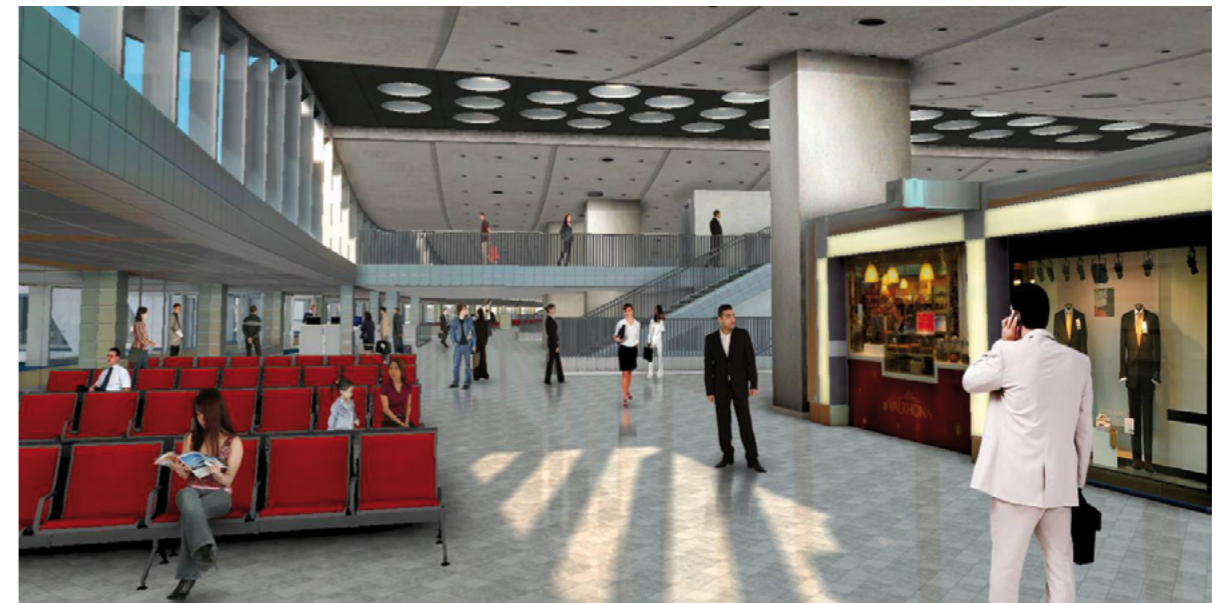
#### IN AIRSIDE ZONE OF TERMINAL 2A

- Opening of a new 1,000 m<sup>2</sup> lounge on the arrivals level  
It will be adjacent to the South facade of the terminal and offer arriving passengers easy access to the immigration checkpoints.
- Unification and refurbishment of boarding lounge  
Terminal 2A will undergo an in-depth facelift in the airside zone. Firstly, partitions will be removed in its boarding lounge, which is currently separated in two, to present passengers with an area of over 3,000 m<sup>2</sup>. A 500 m<sup>2</sup> mezzanine will overlook the lounge and house a high-end restaurant. Furthermore, this area will be entirely refurbished with new shops, services, seating arrangements and restrooms.



#### IN PUBLIC AREA BETWEEN TERMINALS A AND C

Complete refurbishment of retail area between these two terminals. Reorganization of passenger routes in order to facilitate their access to the connecting building, and new shops: a Press Kiosk, a Drugstore, a Mac Donald's and a restaurant, plus the creation of two heated waiting rooms for buses.



### 2<sup>ND</sup> HALF 2013

Refurbishment of public area in terminals:

The opening of a connecting building will allow expansion of the public area in terminals 2A and 2C by recovering 2,000 m<sup>2</sup> of the floor area formerly occupied by the checkpoints. This will offer passengers a more spacious and user-friendly check-in area with the installation of more seats and shops that is redesigned with an additional 2,300 m<sup>2</sup>.

The work on these terminals including the new connecting building represents an investment worth 106 million euros.





## AÉROPORTS DE PARIS AT A GLANCE

### AÉROPORTS DE PARIS KEY FIGURES

#### AÉROPORTS DE PARIS OWNS AND OPERATES:

- › 3 airports: Paris-Charles de Gaulle, Paris-Orly and Paris-Le Bourget
- › 10 aerodromes in Ile-de-France region
- › 1 heliport in Issy-les-Moulineaux

#### 2<sup>ND</sup> RANKING EUROPEAN AIRPORT GROUP IN TERMS OF PASSENGER TRAFFIC

- › 83, 4 million passengers handled in 2010 (+0.4%)
- › 180 airlines in 2010 (airlines with over 12 aircraft movements in 2010)
- › 707 578 aircraft movements in 2010 (- 4.2 %)
- › Approx. 1,940 aircraft movements per day

#### 1<sup>ST</sup> EUROPEAN AIRPORT GROUP IN TERMS OF FREIGHT AND MAIL HANDLED

2.5 million tonnes handled in 2010 (+15.9%)

#### THE LARGEST AIRPORT AREA IN EUROPE

6,686 hectares

#### 2010 KEY FIGURES (MILLIONS OF EUROS)

- › Revenues: 2,739 (+4.0%)
- › EBITDA: 927 (+5.0%)
- › Group net profit: 300 (+11.3%)
- › Aéroports de Paris is listed on Euronext Paris, Mid 60 and SBF 120 indexes

#### BREAKDOWN OF CAPITAL AT END 2010

- › Government: 52.1%
- › Strategic investment funds: 8.0%
- › Institutional: 22.1%
- › Schiphol Group: 8.0%
- › Private individuals: 7.6%
- › Employees: 2.2%

#### 50,200 M<sup>2</sup> OF RETAIL AREA IN 2010

Close to 1,000 businesses are established at the Group's airports, representing close to 115,000 direct jobs and more than 300,000 indirect jobs

#### PARIS-CHARLES DE GAULLE

- › 58.2 million passengers handled in 2010 (+0.4%)
- › 2<sup>nd</sup> ranking airport in Europe and 7<sup>th</sup> worldwide in terms of passengers
- › Aircraft movements in 2010: 491,933 (-5.0%)
- › Close to 1,350 aircraft movements per day
- › 1<sup>st</sup> European hub with 23,800 opportunities for connections in less than two hours per week. (source: Air France-KLM)
- › Air-France-KLM global hub and main European SkyTeam hub
- › European Fedex hub
- › Two thirds point-to-point traffic and one third transit traffic
- › 3,260 hectares of airport surface area (Heathrow 1,230 ha, Frankfurt 1,900 ha, Schiphol 2,800 ha)
- › 3 terminals
- › 4 runways (2 parallel runway pairs)

#### PARIS-ORLY

- › 25.2 million passengers handled in 2010 (+0.4%)
- › 2<sup>nd</sup> French airport and 11<sup>th</sup> in Europe in terms of number of passengers handled
- › Aircraft movements in 2010: 215,645 (-2.2%)
- › Approximately 600 aircraft movements per day
- › Proximity and point-to-point airport
- › Low-cost airlines account for ¼ of its traffic
- › Destinations: Metropolitan France, French overseas departments and territories, Europe, North America, North Africa and Asia
- › 1,540-hectare surface area
- › 3 runways
- › 2 terminals

#### PARIS-LE BOURGET

- › 1<sup>st</sup> European business aviation hub

## AC CONNECTING BUILDING DATA SHEET

### INVESTMENT

€106 M

- › Connecting building: €71 M
- › Refurbishment of public area and airside area of terminals 2A and 2C: €35 M

### DESCRIPTION OF CONNECTING BUILDING:

- › 16,600 m<sup>2</sup> over 3 levels (gross floor area of 23,000 m<sup>2</sup>)
- › Base width: 90 m, summit width: 50 m, length: 75 m
- › Maximum height above runway level: 18 m
- › 13 emigration checkpoints, 6 PARAFES
- › 16 security checkpoints
- › 500 m<sup>2</sup> of office floor area (border police, checks)
- › 2,300 m<sup>2</sup> of shops and bars
- › 3,300 m<sup>2</sup> of lounge floor area

### KEY DATES

#### CONNECTING BUILDING:

Duration of works: March 2009 to 2<sup>nd</sup> quarter 2012

- › March 2009- February 2010: preliminary site works and earthworks
- › February 2010: connecting building works begin
- › April 2011: shell and core completed
- › 2<sup>nd</sup> quarter 2012: building completed

#### TERMINALS 2A/2C:

Duration of works: December 2010 to 2<sup>nd</sup> half 2013

- › December 2010: terminal 2A preliminary works (temporary transit)
- › March 2011: works begin at centre of 2A/2C public area (shops, restaurants, bus waiting areas)
- › July 2011: building works on terminal 2A arrivals begin
- › 2<sup>nd</sup> quarter 2012: renovation work on boarding rooms of terminals 2A and 2C begin (seats, shops, services and restrooms)
- › Summer 2012: opening of press kiosk, drugstore and restaurant at centre of 2A/2C public area flows
- › 2<sup>nd</sup> half 2013: unification of terminal 2A boarding lounge, new arrivals route

### PARIS - CHARLES DE GAULLE: KEY DATES OF A SUCCESSFUL TRANSFORMATION

At the cost of a significant investment - €3 billion between 2006 and 2010 – Aéroports de Paris has increased handling capacity at Paris-Charles de Gaulle by approximately 25 million passengers. For passengers, this expansion and renovation work offers a real improvement in quality of service.

The future is being written today: works at satellite 4, which is scheduled for entry into service in 2012, have begun. On that date, capacity at Paris-Charles de Gaulle should reach 80 million passengers per year, compared to 47 million in 2006.



**APRIL 2007:** entry into service of CDGVAL

CDGVAL is a free and automated metro line. It connects the three terminals of the hub, the RER-TGV train stations and the long-term car parks in 8 minutes.

Cost: €158 M



**JUNE 2007:** opening of Galerie Parisienne (satellite 3)

This new boarding satellite at terminal 2E is designed to handle 8.6 million passengers per year. It can also handle wide-body aircraft like the A380.

Cost: approximately €645 M



**MARCH 2008:** opening of new terminal 2E boarding lounge: 6.3 million passengers are expected there each year. Designed to offer a simple and clear route, the pier facilitates fast international transit and ensures quality of service, in close collaboration with Galerie Parisienne.

Cost: €137 M



**SEPTEMBER 2008:** opening of terminal 2G

This terminal is expected to eventually handle 3 million passengers per year. It was designed to be easy to use and to provide services that meet passengers' needs. It is dedicated to passengers arriving or departing from the Schengen area.

Cost: approximately €94 M



**MARCH 2009:** reopening of entire terminal 1

After more than five years of work, the Aéroports de Paris architects have transformed more than 125,000 m<sup>2</sup> of passenger areas spread across 11 levels, while keeping the building operational. Terminal 1 can now handle close to 11 million passengers per year.

Cost: approximately €248 M



**3<sup>RD</sup> QUARTER 2012:** planned opening of Satellite 4

Dedicated to long-haul flights, this 100,000 m<sup>2</sup> building will be able to eventually handle 7.8 million passengers per year and up to 16 aircraft on contact stands simultaneously (including 7 new-generation wide-body aircraft such as the Airbus A380) for a construction cost estimated at 560 million euros.

## PROJECT OWNER

Aéroports de Paris, Franck GOLDNADEL, Managing Director of Paris-Charles de Gaulle airport

## PROJECT MANAGER

Aéroports de Paris, Christophe BARDIN, project deputy director

## ARCHITECTS

Aéroports de Paris, François TAMISIER, chief architect

Aéroports de Paris, Marc FIDELLE, senior architect

Aéroports de Paris, Marc ANGELY, designer

## PRIME CONTRACTOR/SUPERVISOR

Aéroports de Paris, Bruno PICCHIOTTINO and Dominique PARENT, building supervisor

Aéroports de Paris, Philippe GOURCEROL, building supervisor

## RETAIL

Aéroports de Paris, Nathalie CERDAN

## FUTURE OWNER-OPERATOR

Aéroports de Paris, Franck LE GALL, director of terminals 2A, 2B, 2C and 2D

## DESIGN OFFICE

Aéroports de Paris, Engineering and Architecture Division

## MANAGEMENT AND COORDINATION

GEMO

## CONTROL BUREAUS

SOCOTEC (for connecting building)

QUALICONSULT (for terminal 2A)

## HEALTH/SAFETY COORDINATOR

DEKRA (connecting building and terminal 2A)

BTP CONSULTANT (Module K)

## FIRE SAFETY COORDINATOR

QUALICONSULT SECURITE

## MAIN CONTRACTORS:

Carcass and facades: CHANTIERS MODERNES BTP

Climatic engineering: ETDE

Electrical engineering, strong currents: SPIE IDF NORD OUEST

Electrical engineering, weak currents: INEO COM, CEGELEC, ACTEMIUM ITEIS

Finishings: VULCAIN, AGOS, SIEL, TMB

Electromechanics: OTIS





