The difficult issue of airports in Île-de-France

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For a region, a high-performance airport is an essential factor in competitiveness, a tool at the service of local and regional economic and tourism development. It makes it possible to integrate into the main stream of the global economy. It is a window onto the world, and a gateway to the region, but also, at local level, it is a site on which the economic benefits of air transport are concentrated geographically.
However, although it is gradually improving its environmental record, air transport is a source of major inconvenience and pollution, made worse by the growth in traffic. Aircraft noise, in particular at night, is increasingly ill-accepted, and the share of air transport in the responsibility for greenhouse gas emission is growing… The development in airport activity is a source of permanent conflict.
With no real alternatives until 2020 at the earliest, the Île-de-France airport system, which is ranked 6th in the world, and is Air France's base, and which has become a major world player, should experience further major growth in traffic. Like the other main airport regions of Europe, Île-de-France must find the means to handle and cope with this growth as acceptably as possible, i.e. to keep the noise and pollution under control without jeopardising its attractiveness and its economic performance.

Air transport, dynamism and fragility

Air transport, which really "took off" after the Second World War, has been a major vector in the development of international trade. But the three years of recession that it has just been through remind us of how extremely sensitive it is to the economic climate[1]. Since their trade is labour-intensive, airlines are very fragile, even during periods of growth. It can be said that the accumulated losses suffered by the airlines over the last three years correspond to their total profits since the Second World War. But the development of international trade gives air transport an essential economic role, and the growth in traffic has resumed.

The recession has changed the deal considerably and the landscape of world alliances is starting to stabilise. After the boom and the increase in the number of companies that followed deregulation of air transport in Europe in 1993, the current recession is encouraging a vast process of re-concentration. It can be reckoned that, with the demise of the regional companies, two main models will exist in Europe: integrated major airline centres based on main and secondary hub strategies, and low-cost companies operating as free electrons, specialised in point-to-point transport. It should also be noted that the European Union is increasingly involved in the regulation of and in the policy conducted for air transport. Gérard Borel addresses this subject.

Hubs and point-to-point links
In terms of organisation of the European airport system, a significant recent change results from the fact that, with the development and the segmentation of the market, airports specialised in particular niches (freight, low-cost, charters) are emerging that can relieve pressure on the saturated main airports. Thus, point-to-point links have developed at European level, and one of the questions raised is how the balance between the activity of the major hubs and the development of the point-to-point links between secondary airports will progress (the Airports Council International (ACI) Conference in London in June 2003, addressed the theme of "the death of hubs?"). This debate can be illustrated somewhat simplistically by the opposing strategies of Airbus, whose A 380, with its capacity of about 550 seats, is banking on the reinforcement of the hubs, and also on the development of the Asian market, and of Boeing who, with its future 7E7 Dreamliner, could propose, before the end of the decade, a cheap aircraft with a long range (about 14,000 km) of half that capacity (200 to 250 seats). That aircraft is aimed at a market undergoing major regeneration, with the A 330 as the main competitor.
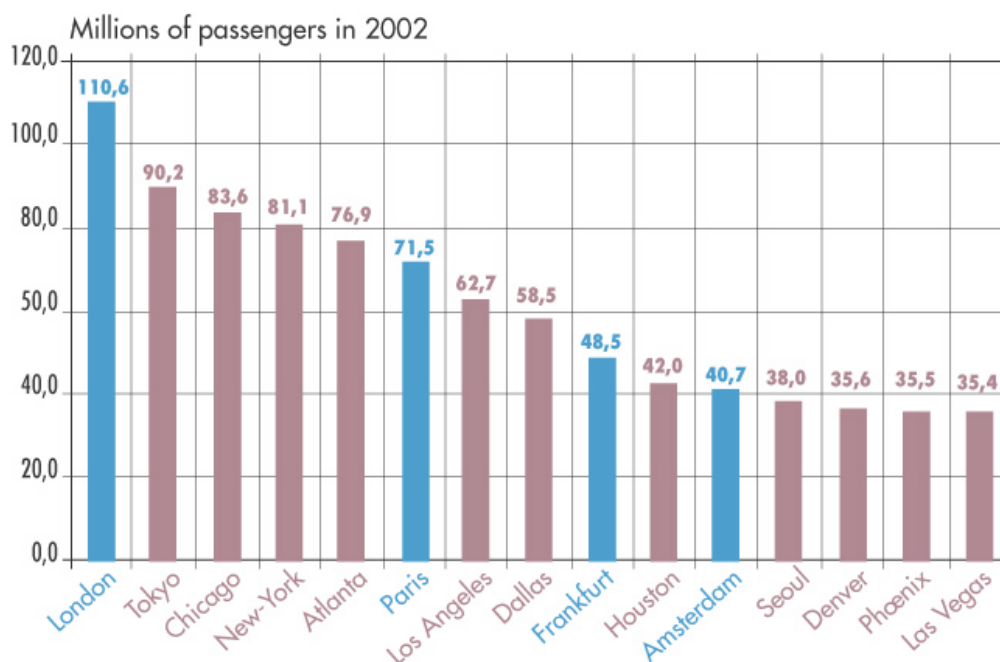

In Europe, the system is organised around three major alliances, one of them, namely Skyteam, is led by Air France. Air France, who handle one half of the traffic in Île-de-France, is thus becoming a leading player at world level.

This is reinforcing Île-de-France as the world's sixth-largest airport system with 71.5 million passengers in 2002, and the Roissy–Charles-de-Gaulle (CDG) hub as one of the main gateways to Europe.

Paris, one of the main gateways to Europe

As presented by Gilles Bordes-Pagès, Air France has managed to develop the most powerful hub in Europe at CDG. This was a precondition for its survival on a deregulated market. A tool for rationalising the airline, the hub makes it possible to connect provincial cities to the major European and world destinations, and also to offer Île-de-France residents destinations and frequencies that the regional market alone would not offer.

But the concentration of the traffic on the Île-de-France airports (60% of the national passenger traffic and 90% of the national freight, and the considerable inconvenience and pollution that it ensues, are increasingly ill-accepted.

Millions of passengers in 2002

London	Tokyo	Chicago	New-York	Atlanta	Paris	Los Angeles	Dallas	Frankfurt	Houston	Amsterdam	Seoul	Denver	Phoenix	Las Vegas
110,6	90,2	83,6	81,1	76,9	71,5	62,7	58,5	48,5	42,0	40,7	38,0	35,6	35,5	35,4

Source : ACI and Direction Générale de l'Aviation Civile (DGAC) – January 2003

Before 2020, there are few alternatives to growth in Île-de-France air traffic

Since, after the long debates at the turn of the century (DUCSAI[2]…), the French Government was not convinced of the economic and technical realism of alternative solutions such as a third airport or major development of regional airports, most of the growth in traffic will go via CDG Airport, which has caused great disappointment among local residents and associations. In an attempt to calm things down, the French Government has since adopted a significant string of measures[3] to reduce noise and pollution, in particular with night flights being limited at CDG Airport, and to improve compensation for noise and pollution (increase in budget allocations for noise insulation and abatement, and the "airport community" project of the Le Grand Report[4]…). But all of this is doing little to reduce the concern of local residents[5], in particular since, after two years of stagnating, the traffic is on the upturn again.

In spite of the desirable reinforcement of the European role of the main provincial airports – Elizabeth Bouffard-Savary reports on this subject –, a gradual transfer of a portion of the short-haul traffic to the very high speed train network which is being built out on a European scale – addressed in an article by Danièle Navarre – and the possible transfer of certain traffic segments (low-cost, charters or freight) to secondary airports[6], the prospects for growth in traffic at Île-de-France airports remain considerable. It can be reckoned that demand will be at least 120 million passengers by 2020[7]. Even if the think on a new airport were to be resumed tomorrow[8], since such an airport could not be operational before

another twenty years or so, it will be necessary to find, in the meantime, the means for handling and coping with the growth in traffic as acceptably as possible, and to seek to integrate the airports better into their host areas.

Airports: structuring centres in the regional landscape

The region's spatial and socioeconomic context defines in part the possibilities for economic development and for diversification on the airport site. In return, such development has a regional impact, through the wealth and the jobs created, and through the role as development centre and the centrality (defined by the concept of Airport City that appeared in the United States in the nineteen seventies) that is taken on by the airport sector in the regional structure. Indeed the airport sector can go as far as to compete with other regional economic centres and the induced economic developments can limit the development potential of the airport as a transport infrastructure. All this thus directly involves planning choices at regional level.

From the aerodrome to the airport city

Airports were initially specialised infrastructures located outside conurbations, but urbanisation has gradually spread out to them. In particular since the development of the terrestrial access infrastructures that has gone hand in hand with the growth in air traffic has given airport sectors a good quality of multi-modal access and services that make them particularly attractive for business location. In spite of the noise pollution, demand is also strong as regards housing.

Airports in themselves represent a very powerful magnet for employment, with over 75,000 jobs in 2003 at Roissy–CDG Airport, about half of which are dependent upon the airlines. But airports have experienced diversification in their functions. Today, with their economic environment, they constitute one of the most dynamic types of peripheral urban centres, if no the most dynamic type, within the multi-centre organisation that has established itself in the regions[9].

This applies to the sector of Roissy. Driven by the development of the airport and of its intermodal role, it has enjoyed high employment growth, while employment was stagnating at regional level. It is the leading sector on the regional market for business parks and industrial estates, and its location at the crossroads between two major logistics axes, namely the A1 motorway and the eastern section of the orbital road "La Francilienne" accentuates the pressure from demand there. It includes highly internationally-focused sites such as Paris Nord II or the exhibition park ("parc d'expositions") of Paris Nord-Villepinte. The airport has also induced major top-of-the-range hotel activity in its immediate environment.

But the presence of the airport has also led to strong negative impacts on the urban operation of the sector, and in particular to fragmentation of the local area[10]. The extension of the noise zones in the noise exposure plans ("plans d'exposition au bruit" (PEBs)), that has come very late, is today posing a new problem to the local authorities concerned.

The complexity of the administrative area divisions and the multiplicity of players have so far prevented sufficient consistency from being achieved in planning policies – the article by Jacques Grangé recalls the recurrent difficulty of taking public decisions in the Roissy sector –, and prevented a significant reduction from being achieved in the gap between an international-scale development centre and a surrounding area facing difficult socio-economic realities.

In the sector of Orly, in spite of the noise and pollution from the airport, as explained in the article by Sandrine Barreiro and by Sylvie Lartigue, the municipalities are aware of the role it plays in the development and the attractiveness of their areas. They have seen the negative effects of the most strategic lines being transferred to CDG Airport, and they would like to see Orly airport's slots being used better, with the re-opening of European and intercontinental lines[11]. For them, seeking better drive from the airport on its surrounding area is one aspect from among numerous other concerns: the environmental constraints and ill effects that affect the sector, a certain weakening of the economic fabric, and major problems as regards access and planning. The inter-municipality level is the only possible level at which to respond to the problems of this sector which is seeking new dynamism. The economic players are also mobilising themselves.

The major issue of economic, social, and urban integration

The relationship between airport and surrounding area is a sudden collision between the global and the local. Around the Île-de-France airports, the contrast is striking between the islands of wealth induced by the airport activity and large zones of social housing. Jacques Grangé, in a memo drafted during preparation for a European project, explains the situation well: "Economic and social integration is a major issue in Île-de-France. Built on the outskirts of the conurbation, the airport hubs rub shoulders with pockets of highly social housing and of populations in difficulty. Orly is a major airport, but it is also one of the leading sites for social housing in Île-de-France, with its social housing having been undergoing continuous rehabilitation for the last twenty years now. Roissy–CDG is tangential to a low-income housing area that has grown up out of the zones of worker's houses built between the wars, and that were then supplemented by the large social apartment blocks. The issue today is how to reintegrate into the economy and into employment populations who are victims of serious socio-economic and cultural handicaps.

"The rapid growth in employment in recent years at CDG Airport has made these problems even more acute. Suffering from unemployment rates that are higher than the regional average, the local authorities expect the airport development to bring jobs for their young people, including those in difficulty."

This theme has been the subject of major partnership policies. They are mentioned below. But, on a general level, it can be said that the financial spin-off from the airport activity and from air transport on the areas that suffer the most from the resulting noise and pollution are very insufficient compared with the corrective policies and local development policies that they should be able to finance.

Integration of airports into their surrounding areas should also incorporate a large spatial planning dimension. Designed from the outset as self-contained facilities, with very few access points and dedicated internal networks that were not interconnected (access to the terminals, to the freight zones, etc.), their structure does not lend itself well to diversification of the functions on hubs and to the development of their ties with their nearby urban and economic environment.

Air transport players are opening up to their surrounding environments
Aéroports de Paris (ADP), which is overseen strictly by the relevant ministry, and which thus has limited room for manoeuvre, but which enjoys a monopoly situation on a lucrative market[12], lived for a long time as a fortress under siege. For several years now, ADP, in spite of internal reticence, has been making considerable efforts to open up to its social and urban environment by increasing the number of partnership actions it takes on various themes (employment, accessibility to the airport, etc.). It is thus developing its communications so as to make the airport world better known: opening the "Maisons de l'Environnement" (environment houses) of CDG Airport and of Orly Airport[13], publication every two months of Entre Voisins (between neighbours), a journal with a circulation of 520,000, organisation of numerous meetings with the local councillors and associations. ISO 14 001 certification has rewarded the efforts made on environment management, and thus on integrating the airport into its environment. ADP, which is not the main producer of noise and pollution, was long on its own in the firing line facing claims from local residents and local players. The airlines now seem to be understanding the need to become involved at local level. Thus Air France, which is already a partner in several initiatives, was the driving force behind the setting up, in June 2003, of the association "Pays de Roissy–CDG" (Roissy–Charles-de-Gaulle Country).

Increasing the "local integration capacity" of airports
These efforts to integrate airports economically and socially into their surrounding areas, and to have air transport players open up to a greater extent onto their surrounding environments, can, in addition to essential noise and pollution reduction policies, which remain the main priority, make it possible to increase the "local integration capacity" of the airports. Beyond the "technical capacity" of the airports (air space and land infrastructures), that is relatively easy to define, and the "environmental capacity" that is starting to be better analysed, it is their "local integration capacity," i.e. how well they are accepted by their surrounding areas, which therefore involves a large number of economic, political, and social functions, which increasingly determines their development possibilities.

Travel and mobility: from the air transport hub to the land transport hub
A wide variety of modes and of scales of land transport converge on airports. From air transport hubs, they are becoming land transport hubs.
The share of public transport in access to the airport for passengers and staff is currently too low, and an increase in that share is being sought.
The search for better complementarity between air transport and the very high speed train network which is being built out on a European scale is a means for lightening the pressure from demand on the airports, today for passenger traffic, and tomorrow perhaps for freight.

Land access to Île-de-France airports: could do better
The history of the development of the infrastructures giving access to the Île-de-France airports is marked by a long series of disputable decisions, which can perhaps be explained in part by a strategy of competition that was poorly understood, and costly for taxpayers, between public land transport operators and air transport operators. From this point of view, the quality of service offered to users and to employees of the airport is much lower than it should be [14]. Danièle Navarre in particular presents an interesting comparative approach on access and services to 17 European airports, in her article on land access to airports.
At Roissy–CDG Airport, we might recall the original choice of the location of the regional express network (RER) station out in an open field, in the middle of the airport, and not serving the terminals. Today customers of the foreign airlines located at Terminal 1 still suffer from having to change mode of transport and from the poor shuttle bus service, unworthy of a major airport. During the nineteen nineties, the choice of an unsuitable internal transport system, the SK, caused the loss of one billion francs in engineering and investment cost, and has led to a delay that means that today the airport still does not have a fast internal transport system. Fortunately, it should not be too long now before it does. The under-dimensioning of the RER station situated under Terminal 2 means that, with only two

platforms, it cannot play a normal role as a terminus station, which is leading to operational restrictions on services to and from the airport, and is complicating future developments. As for Orly, the change of mode of transport (transhipping) imposed by the design of the Orlyval driverless metro and its high cost for users limits its role in serving the airport.

This explains that in Paris, in spite of the existence of rail infrastructures, they, because they are unsuitable and also probably because they are over-priced, are used by only 15% to 17% of passengers, i.e. even fewer passengers than those carried by the airport buses, even though the buses have to follow road routes that are highly saturated. And yet, in order to limit the saturation of the road infrastructures, it is essential to seek major modal transfer of passengers, and also of staff of the airport[15] to public transport. The creation of the hub committees (comités de pôles) of the PDUs (plans de déplacements urbains (urban travel plans)) at CDG and Orly, led by ADP, are imparting an advantageous dynamic drive to players to work towards this aim.

As for the CDG-Express project which was to connect the Paris Gare de l'Est station to Roissy–CDG Airport, it will not be built as planned but, after a public debate conducted very openly and constructively in the autumn of 2003, it has opened the way towards seeking the most suitable possible solution for improving access to the airport. Other airport access projects are being considered in the longer term.

Very high speed train Europe and air-rail intermodality
On a larger scale, one of the very positive points is the fact that Roissy-CDG Airport enjoys access via the TGV (very high speed train). As shown by Danièle Navarre's second article, air transport has a competition-complementarity relationship with the TGV network which is being built out on a European scale. The TGV takes market share away from air for journeys of under 3 hours, but it also serves to broaden the customer catchment area for airports, and to free up capacity for medium-haul and long-haul flights. Roissy-CDG is one of the best positioned airports on the TGV network[16]. Using the TGV network for fast rail freight could contribute to reducing problems related to air freight which is subjected to increasing technical and environmental constraints. That is the subject addressed by Brigitte Millour's article.

Increase in TGV custom at Roissy-CDG Airport (in numbers of travellers)
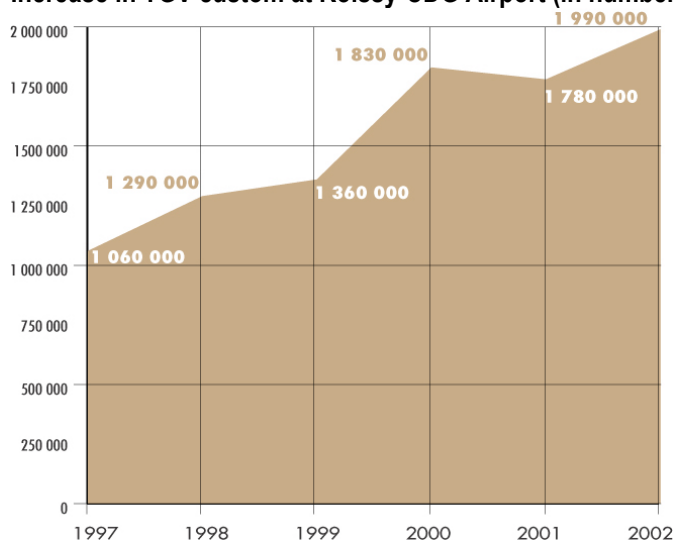
Source : IAURIF

Airports, major tools for regional development
A high-performance airport is an essential factor in competitiveness, a tool at the service of local and regional economic and tourism development. In the context of globalisation of the economy and of growing metropolis-ization, such an airport makes it possible to integrate into the main international trade networks.

It is a gateway to the region, a means of access to the region's suppliers and to its external markets, and it is an asset for attracting locations of registered offices, businesses, and industries, and

investments, which are increasingly mobile at global level. For residents, this gives an opening onto the wide world.

At local level, the airport is a site on which the economic benefits of air transport are concentrated geographically. It is thus a very powerful magnet for employment that generates major financial flows for the benefit of its region. But it is above all a growth-driving centre whose effects and attractiveness are diffused over a wide area. It can be estimated that one job at the airport induces about 2 others in the regional economy.

The economic impact of the Île-de-France airports

The regional airport system has a direct economic impact, through the jobs and the wealth it creates: over 100,000 jobs at the airports, 10 to 11 billion in direct financial flows generated by the businesses of the hubs for the benefit of Île-de-France. But, above all, it constitutes an essential tool at the service of the region's vocation as a tourist destination (it is the world's leading region for tourism), and for operating and developing all of its sectors of activity that it makes it possible to connect up to world trade. Thus, in value terms, air transport handles 20% of regional imports and 30% of regional exports. In his contribution, Bernard Attali reminds us that Île-de-France airports are strategic infrastructures for attracting international investors, and key infrastructures for regional competitiveness.

The analysis of the local tax revenue generated by airport activities, conducted by Jean-Pierre Chauvel, shows that eight of the top ten Île-de-France municipalities in terms of tax revenue are located at or in the vicinity of Roissy–CDG or Orly[17]. This alone illustrates the strategic importance of the airport sector for the local authorities and communities in question. The core of the airport activity represented about 500 taxpayers and 174 million euros of local business tax in 2002, 30 million of which is allocated to funds for balancing out differences between the more wealthy counties and the less-privileged ones. But the search for better distribution of the tax revenue from airports, which is distributed very inequitably to municipalities who are subjected to the noise and pollution from them, is still on the agenda.

Sylvie Lartigue shows, in the cases of Roissy–CDG and Orly, the disparity of the effects of economic drive from the airports on their surrounding areas.

An active partnership for employment and training in the Roissy sector

Roissy–CDG, Europe's No. 2 airport, recruits about 8,000 people per year. Air transport is an industry that is still in its youth, its trades are very varied and are changing continuously. In order to satisfy the needs of this sector of activity, and so as to promote access to jobs for populations living near to the airport, a broad partnership has been developed over the last few years by the various players, and in particular by ADP.

Noured3dine Cherradi presents the role of the "emploi Roissy–CDG" (Roissy-CDG employment) GIP[18] and the holding of a first local area conference in November 2002, which marked a major step in the approach that aims to reconcile the expectations of the airport players with the expectations of the neighbouring communities. In recent years, the training supply has developed considerably in the sector of Roissy, and the players are working to prepare a local area plan for training that will offer the best possible overall consistency.

Noise and pollution: the challenge of achieving control and transparency

The downside of the essential role played by airports in the regional economies is the extent of the noise and pollution to which the local populations are subjected, and more generally the ill-effects of air transport on the environment. These aspects are developed in the article by Claire Moulinié and Erwan Cordeau.

Progress that is not keeping up with the increase in traffic, and a regulatory framework that is increasingly stringent

Air transport is an industry with long cycles, since an aircraft remains in service for about thirty years. There has been significant progress as regards reducing noise and pollutant emissions. Over the

period for 1970 to 1990, the trend was a 1 dB per year reduction for noise, and a 2% per year decrease in fuel consumption, and thus in pollutant emissions. That trend has slowed since with the gradual renewal of the fleets and the withdrawal of chapter-2 aircraft and is now 0.5 dB per year for noise, and 1% for fuel consumption. Air transport, taking advantage of the international nature of its activity and of the high concentration of its industry, has apparently not improved its environmental performance at the same rate as land transport modes have and, since its traffic is growing much more steeply, its environmental impact, in particular as regards greenhouse gas emissions, is growing.

An increasingly strict framework is gradually being put in place, from international or European regulations to commitments made locally, e.g. under charters. Research is mobilised in Europe around strategy focuses and objectives defined by the ACARE[19], but there remains much to do to make airports bearable neighbours for local residents. For noise abatement, it will require technological breakthroughs.

The development in the traffic must be accompanied by development in keeping its impacts under control and in internalising its environmental costs.

For Marc Ambroise-Rendu, President of "IDF Environnement" (Île-de-France Environment), air transport and sustainable development are not incompatible, "provided that we get started on making them compatible," and if air transport meets its environmental obligations, the increase in its cost will show that it cannot be a mode of transport for the masses.

In Île-de-France, the important levels of noise and pollution are increasingly ill-accepted

In Île-de-France, 1.8 to 2.3 million people live in areas over which aircraft fly at lower than 3000 metres. Around Orly and CDG, about 50,000 people are exposed to the highest amounts of noise and pollution. And there are not only 2 airports. There are 25 others, totalling one million movements per year. Emissions from CDG Airport are of the same order of magnitude as the emissions generated by the Paris ring-road, the boulevard périphérique.

Significant steps are being taken to assess and to reduce noise and pollution, in particular with the adoption of a noise index defined on the basis of measurements – rather than on the basis of aircraft certification data -, and that index will gain in consistence through the increase in the number of measurement stations[20], and with the decisions taken to reduce night flights at Roissy–CDG[21]. But much remains to be done, and the level of complaint from local residents is considerable. Such complaint expresses an increase in the inconvenience related to noise (difficult to define because it incorporates complex factors) – Bernard Barraqué shows in his article how various researchers are working to go beyond the medico-acoustic approach to inconvenience, which was the preferred approach up until now and which does not explain very much. Such complaint also expresses concern about the impact of air traffic activity on health, and about the future increase in traffic, and loss of confidence in the official "line." For Simone Nérome, President of 'ADVOCNAR,[22] who, as a doctor, is particularly aware of the problem of impact on health, it is essential to re-establish that confidence. Such complaint also expresses a demand for the impartiality of technical experts and assessors to be guaranteed. The setting up of ACNUSA[23], in 1999, is first response to that demand. Roger Léron, its President sets out its concerns. Among the players who are fighting to reduce noise and pollution, there are also local councillors. The example of Val-d'Oise, which is the Île-de-France département that is subjected to the most airport noise and pollution, shows how the council had to organise itself to cope with its cumbersome neighbour, namely CDG Airport. In particular, it has set up an observation group and a noise mission[24] and it is organising its own measurement campaigns. It is also heavily involved in debates on reviewing the noise exposure plan (PEB). All of these complaints and questions are also part of increasing awareness among the populations of problems related to the environment and, more generally, the debates on the development of air transport, the preferred vector of globalisation, touch divisions that run deep through our society as regards the type of development that is desirable.

Measured aircraft noise

Aircraft and engine model	Year commissioned	range km	max mass on takeoff	number of passengers	Most frequent level / maximum in dB(A)max				
					Approach		Takeoff		
					10 km	5 km	5 km	10 km	15 km
CRJ 200 (CF34-3 B 1)	1992	3045	23 t	50	67,5 / 71	73 / 76	70,5 / 74	0 / 65	0 / 0
BAE 146-200 (ALF 502 R-5)	1983	2000	42 t	85/100	70 / 73	75 / 77,5	76 / 82,5	69,5 / 73	67 / 72,5
Fokker 100 (TAY 650-15)	1986	2700	44 t	107/122	67,5 / 74,5	74 / 79	78 / 82	71 / 74,5	67 / 71
B737-500 (CFM56-3-C-1)	1990	4400	59 t	110/132	71,5 / 75,5	78 / 81,5	78 / 82,5	71 / 75	67 / 70,5
B737-300 (CFM56-3C-1)	1984	4200	62 t	128/140	72 / 75,5	78 / 81,5	83,5 / 85	71 / 74,5	69,5 / 72,5
A 319-100 (CFM56-5B5/P)	1996	3250	64 t	115/140	72,5 / 76	76 / 79	75 / 79,5	68 / 72	66,5 / 70,5
A 320-100 (CFM56-5A1)	1988	3500	68 t	150/180	71,5 / 76,5	77,5 / 80,5	76,5 / 82,5	71 / 74	69 / 72,5
MD-83 (JT8D-219)	1985	4600	72 t	155/172	72,5 / 77	78 / 82,5	87,5 / 92,5	79 / 82,5	77 / 80,5
A 320-200 (CFM56-5A1)	1988	5500	77 t	150/180	72 / 76,5	77,5 / 80	77,5 / 82	70,5 / 73,5	69 / 72,5

Progress: it is now possible to talk in terms of measured noise rather than merely of certified noise. This table gives the most frequent and maximum noise levels, on the basis of a large number of measurements, of various types of aircraft (with their engine types) at various distances from the airport.

According to DGAC: measuring and understanding noise close to airports

Towards management at airport level

When we read ADP's annual reports on its environmental policy, we perhaps forget that they are describing only the action that corresponds to the perimeter for action by ADP. But actually over one thousand businesses are present on the Île-de-France airports, from large groups to small businesses, with a very wide range of trades and of environmental impacts. Liabilities are thus diluted through a very complex interplay of players. Beyond its action in its own field of responsibility, ADP is seeking to broaden environmental management to the level of the entire local area of the airport and to the level of all of its players, on the basis of behavioural ethics and an industrial ecology concept that everyone shares. Such is the approach presented to us by Frank Le Gall, head of environment management at ADP.

Governance and consultation: the difficult art of compromise

The article by Guillaume Faburel illustrates how, in Europe as in the United States, airport development is a source of constant conflict. The modes of assessing noise and inconvenience due to noise are disputed. The coalitions of opposition are broadening to include local councillors and experts, and the very utility of the projects is sometimes called into question. The region is gradually appearing as the level at which compromises must be found.

In Île-de-France, as shown by the DUCSAI procedure[25] on the "3rd airport," the debate about airport policy is too often reduced to frontal antagonism between the world of air transport and those who suffer from the noise and pollution, or who criticise the environmental impact of air transport. Structures exist for exchange and consultation that are specialised per theme ("Commissions Consultatives de l'Environnement" (Consultative Environment Commis-sions), "Comités de Pôles" (Hub Committees) of the PDU (Urban Travel Plan), "GIP Emploi Roissy" (Roissy employment group), etc.), but there is no framework for an overall approach which would make it possible to seek to construct a representation that is as broadly shared as possible of the issues and of the constraints of airport development, and to build the essential compromises. And yet such a framework is necessary, in order to seek to define modes of managing the airport activity that comply with the conditions for sustainable development and with the legitimate concerns of local residents, while preserving as well as possible the imperatives of economic development and of regional competitiveness. On this subject, some of our European neighbours have practices that are more advanced than ours, even if the situation is difficult everywhere.

The difficult governance of local areas in which airports are located in Europe
The multiplicity of the players, of their interests, and of their strategies further complicates the management of airport development, which is by nature subject to conflict. In addition, European airports are often located on the borders of several administrative areas: instead of being at the centre of one planning area, they are at the margins of several different ones. Everywhere in Europe, be it for the great public debates conducted on projects for new infrastructures or for attempts to manage better, on a daily basis, the relations between the airport and its environment, new practices are developing and new structures are being created in an attempt to go beyond the antagonisms, to build a vision of the issues that is more broadly shared, and to find compromises that are as acceptable as possible, and

more consistency in the policies conducted. Mention might thus be made of the Airport Consultative Committees (ACCs) in England, the Communauté Aéropor-tuaire (Airport Community) set up for Brussels Airport, and the Regionales Dialog Forum in Frankfurt. The very precise contractualisation of the commitments of airports to the local communities that is implemented in England in the form of a Legal Agreement is an interesting procedure. In addition to the precise improvements that it makes possible, e.g. as regards noise and pollution reduction or compensation, or as regards land transport services, that type of undertaking offers the advantage, for local residents, of having guarantees as regards the planned development of the airport, and, for the airport authorities, of offering good medium-term visibility for the programming of their development and of the necessary investments.

However, everywhere in Europe, the conditions on which airport development can be accepted are always difficult to find.

Roger Jones thus shows us how, for fifteen years, the British Government has been vainly seeking the location on which to put a new runway in South-East England, where the airport system is highly saturated. Today, it is more like two or three runways that would be necessary, and the solution is still as far from being obvious as ever. The recently published White Paper will not close the debate, in particular since it proposes to build a new runway at Stansted, and also at Heathrow, one of the most saturated airports in the world. It should also be noted that the idea of a new airport has been abandoned.

Consultation in the Netherlands is often held up as an example. It is possible that consultation is facilitated by the national consensus that exists on the development of main port and airport infrastructures, in a country whose domestic market is limited and whose economy has, for centuries, been based on international trade. Marielle Prins presents the 2002 Schiphol law, which has regulated the building of the fifth runway, by setting precise safety and environment limits. But when somewhat dubious calculation errors were made by the Schiphol Group when defining the noise quotas taken into account in the law, the Dutch State revised the law so as not to jeopardise the activity of the airport.

Île-de-France: seeking the most suitable mode of governance
The article by Fouad Awada, which ends this issue of Les Cahiers de l'IAURIF, brings the focus back to Île-de-France. Relations between the Île-de-France airports and the local areas in which they are located have, until now, been relations of conflict, managed in disjointed manner and in terms of "points won" and "concessions made." Current developments in the institutional context (new wave of decentralisation) and in the airport landscape (restructuring of the DGAC[26], change in the articles of association of ADP and of Air France, etc.), and the fact that we are coming closer every day to the "limit of what is acceptable" as regards the intensity of the noise and pollution that is borne by local residents, are encouraging a reform in the mode of managing these relations between airports and their local communities. Parliamentary reports already propose avenues for greater integration of the debated subjects, and for a greater role for the Regional Council of Île-de-France. But in France, there is a considerable lack of thinking from the authorities on the themes of consultation – for which Jean-Marie Gourdin, President of the UFCNA (French Union against aircraft pollution), reminds us of the conditions – and of governance in airport sectors[27], compared with our European neighbours. Their experience can definitely teach us a lot, even if the situation is not easy anywhere, and the road to participative democracy is a demanding and difficult one. It is not possible to do without genuine surveys and broad debates on subjects that are as complex and that involve such important issues. The combat to reduce noise and pollution and to obtain fair compensation for them is, of course, essential, but it is necessary also to develop a broader strategic vision for enhancing the areas coming under the influence of airports, so that airports are tools that are as effective as possible at the service of employment, business, and attractiveness of the region.

Breakdown per département of negative and positive impacts of airports

	Population on flight paths East-facing configuration <1 000 m <3 000 m	Population on flight paths West-facing configuration <1 000 m <3 000 m	Local business tax revenue 2002 (all beneficiaries)	Jobs at CDG + Orly Airports (2000)
95 - Val d'Oise	76,4 % 27,2 %	31 % 39,1 %	31,3 %	10,8 %
93 - Seine St Denis	0 % 3,5 %	0 % 5,6 %	23,2%	14,3 %
77 - Seine & Marne	0,7 % 12,7 %	54 % 15,5 %	9,1 %	13,3 %
91 - Essonne	9 % 17,7 %	0,01% 6,2 %	25,4 %	14,1 %
94 - Val-de-Marne	6,1% 2,3 %	14 % 1,1%	8,9 %	9,3 %
75 - Paris	0 % 0 %	0 % 0 %	1,4 %	10,4 %
78 - Yvelines	7,8 % 22,2 %	0 % 8 %	0,02 %	2,7 %
92 – Hauts de Seine	0 %	0 % 16,9 %	0,05 %	5 %
Provinces	0 % 7,2 %	0 % 7,4 %		19,9 %
Total CDG + Orly	531,701 inhabitants – 100 % 2,453,528 inhabitants – 100 %	159 619 – 100 % 1 970 585 – 100 %	173.5 million euros 100 %	93,617 jobs 100 %

Sources:
- Estimate of populations living on flight paths - IAURIF for ACNUSA – May 2003
- Local business tax 2002 (all airport firms, even off the hub) – DGI
- Jobs 2000 – socio-economic impact of Ile-de-France airports – IAURIF for ADP – March 2003

(1) Air traffic grows from 2 to 3 times faster than GDP during periods of economic growth, but, during serious recessions or times of crisis (Gulf War in 1991), Asian crisis in 1998, post September 11, it falls more heavily.
(2) Démarche d'utilité concertée pour un site aéroportuaire international (Consulted Utility Approach for an International Airport Site)
(3) On the basis of the focuses proposed by
the French infrastructure minister (ministre de l'Équipement) in his memo of July 25, 2002 "pour un développement durable des aéroports parisiens" ("For the Sustainable Development of Paris Airports)."
(4) Report published in November 2003 and that is the subject of a Bill. The airport community (one for Orly and one for CDG), which would include a college of local authorities, and a college of businesses benefiting from the airport activity (but no representatives of the civil society), would be mainly in charge of managing an airport community services and investment fund (FISCA (fonds d'investissement et de services de la communauté aéroportuaire)). That fund, fed from various sources, would finance projects in the following five fields: environment (including noise insulation and abatement grants), town-planning, transport, employment, and information. It could be chaired by the president of the regional council and have the status of an administrative public establishment.
(5) The latest demonstration by residents brought together 2500 people, including numerous local councillors, on January 25, 2004 in Paris. Two sound-broadcasting lorries reproducing the noise of an aircraft taking off every one minute thirty, representing what the rate of take offs can be at CDG Airport, enabled them to share with Parisians the noise to which they are subjected on a daily basis.
(6) In order to reassure the local residents, the government, after having led people to believe that Schiphol (with KLM being integrated by Air France) could play a role as 3rd airport, also mentioned at the meeting of the inter-ministry committee for regional planning and development (CIADT (comité interministériel pour l'aménagement et le développement du territoire)) held on December 18, 2003 "a third airport network" (Beauvais, Chateauroux, Vatry), which, nevertheless, should only moderately relieve pressure from traffic on Île-de-France.
(7) Given that it is difficult to see how the two main Île-de-France airports could handle over one million movements (take-offs and landings) per year, namely 250,000 at Orly and about 750,000 at CDG. The problem for the future is plain for all to see. The increase in the average number of passengers per flight is an important variable, but cannot be decreed. The low current level of licence fees for short-haul and long-haul flights (see contribution from Jacques Blaison) show that there are possible financial incentives for increasing the number of passengers per flight.

(8) It should be noted that, in its White Paper published in December 2003, the British Government abandons the idea of building a new airport in South-East England, and recommends, in particular, building a new runway at Heathrow, one of the most saturated airports in the world.

(9) Indeed care must be taken to ensure that the "technopolitan" impact of the airport, i.e. the capacity it has to attract businesses to its immediate environment, is kept under control so as not to stifle the airport function itself.

(10) In his thesis "Les collectivités locales face à Roissy-CDG" (the local authorities faced with Roissy-CDG airport), Xavier Lavergne, mentioning the major projects conducted by the French State in the Plaine de France area (CDG Airport, Garonor transport and logistics park, the business parks of Parinor and Mitry-Compans…), writes "the Plaine de France has already been operating as an area serving Paris for two centuries. Its unity and its identity have been sacrificed to satisfy the technical and spatial needs of the Capital." Geography master's degree thesis, University of Paris 13, Villetaneuse.

(11) The contributions from Fabien Lawson address this problem of allocation of slots.

(12) Its turnover for 2002 was 1.4 billion euros, 505 million of which came from airport fees, 128 million from airport taxes, and 134 million from assistance fees. A report from the Audit Office ("la Cour des comptes") in 2002 criticises certain aspects of ADP's management and the insufficiency of its "customer" culture.

(13) Unfortunately on sites to which access is rather difficult.

(14) We never see the Île-de-France airports ranking high up the hit-parades of international airport user satisfaction surveys, on the theme of accessibility or on other themes.

(15) 90% of the 100,000 airport staff use their own car to travel to work.

(16) Air France emphasises that it cannot become too dependent on the SNCF (French rail operator) for carrying passengers to its hub because of insufficient guarantees of continuity in the service. In the event of a strike, services to and from Roissy-CDG would be among the first to be stopped. It should also be noted that the TGV network also has limits to its capacity.

(17) The other two municipalities are Rungis (national wholesale market for produce (MIN)) and Puteaux (tertiary centre of La Défense).

(18) Public interest group.

(19) Advisory Council for Aeronautical Research in Europe.

(20) In addition, at the end of January 2004, the regional council decided to set up a Bruitparif (Paris Region noise monitoring and control agency) like "Airparif", the Paris region's agency for monitoring and controlling quality of air. The non-profit-making associations strongly wanted this new structure to be set up.

(21) On the basis of the focuses presented by the French infrastructure minister in his memo of July 25, "for sustainable development for the Paris airports."

(22) Association de défense contre les nuisances aériennes (Association for defence against aircraft noise and pollution).

(23) Autorité de contrôle des nuisances sonores aéroportuaires (Authority for monitoring and controlling airport noise).

(24) For its part, Val-de-Marne has set up a county sound environment observatory or "Observatoire départemental de l'environnement sonore" (ODES).

(25) "We should think about how to go from the public debate as an "event" to a genuine culture of consultation," comments Jacques Theys, head of the "Centre de prospective et de veille scientifique" (Centre for forward-thinking and science watch) of the French Infrastructure Ministry ("ministère de l'Équipement"), during the week devoted to the theme "Is it possible to agree about airports?" ("Peut-on s'entendre autour des aéroports?"), in Paris on June 26, 2002.

(26) In part because of the putting in place of a "single European sky," which is leading to a large portion of the air navigation regulations being transferred to the European Commission, assisted by the "single sky committee of Eurocontrol, the DGAC must separate clearly its various functions as service provider, watchdog, and sovereign authority. In 2002, the DGAC received about 800 million euros in route licence fees, 190 million in licence fees for territorial services (RSTCA). In addition it received 200 million euros in civil aviation tax, which feed in particular the "fonds d'intervention pour les aéroports et le transport aérien" (fund for action on airports and air transport) (FIATA)).

(27) The parliamentary report by the information mission chaired by François-Michel Gonnot includes, in its first two proposals, elements on this theme that deserve to be explored in more depth, in particular when he mentions a "genuine contract" with the Île-de-France residents.