

The logo for the Airport Regions Conference (ARC) features the letters 'ARC' in a bold, black, sans-serif font on a yellow rectangular background.The logo for Val d'Oise, featuring the text 'val d'oise' in a black, lowercase, sans-serif font, with a large, stylized red 'V' to its right. Below the text is the phrase 'le département' in a smaller, black, lowercase, sans-serif font.

AIRPORT REGIONS CONFERENCE

Airports Impacts : What do we know ?

A County Council of Val d'Oise Study For ARC Members

Airports Impacts

A state of Art & knowledges, regard the scientific litterature - 2013

Why this study ?

The elected representatives of local authorities have to deal with :

- **Population's needs,**
- **Spatial planning**
- **Economic and social development**
- **Ecological questions**
- **And, e.g French county councils : Social allowances (particularly for long term unemployed people) : 500 M€/year in Val d'Oise, second level school buildings, housing, pregnant women & babies' health, roads, public transport network (or weakness of it !)**

.....and deal with several authorities levels !!!

And all that is links to airport activities impacts

The choice must be the right (or the « least bad ») decision. So, Local Authorities Need :

- accurate and reliable data to decide and benchmark the efficiency.
- assessement to find their own « *balanced approach* » of the region.

In this context, an airport is a important fact.

What local do authorities know exactly about these impacts ? (Lot of figures, ...)

➡ Mapping the scientific litterature of current state of the art

First finding Information

Negative Impacts are really acknowledged when they can be financially valued as « external costs ».

= (in market-based approach) : costs of impacts of transport generally not borne by the transport users, and supported by communities and society. (e.g : environmental costs).

👉 **Objective : internalisation and/or compensation**

Valuing external costs means :

- **Knowing how to value these impacts**
 - **Getting scientific consensus about assessment methodology**
 - **Getting units value, agreed by stakeholders (i.e, X€T_{eq}CO₂, X€ xx Lden, ...)**
- ⇒ **If not, Impacts are not really considered, or under/overestimated.**

Economic Impacts : « flights means jobs »

- **Studies are carried on/funded by the airports/airports association (i.e ACI)**
- **All the studies confirm airport contribution to local, regional and national development and employment (direct, indirect, induced, catalytic...)**
- **« 1 million passagers = 1000 jobs »...or more ??...or less... ?? : how many, where, what kind of job, what clear indicators use for monitoring ?...**

ADP (Roissy, Orly, Le bourget) = « 340 290 jobs related » (BIPE 2012)

Heatrow (1 airport) : 136,000 jobs in the London area (2010-Optimal Economics)

Quantify jobs, but....

No single global standard method *used* for leading airport economic impact analysis

There's ACI Europe social and economic impact of airports' guide, but ... e.g in France :

- definition of direct, indirect, induced, and catalytic effects and input indicators used by airport's methodology are different from the 2000 ACI guide....
- The methodology used for ADP, because it's an international airport, differs from the methodology used for other French airports...

Economic impacts : what to remember

About studies, according to scientists :

- Real difficulties to collect available, relevant, non-confidential and credible input data
- Lack of geographical distribution of impacts analysis
- Indirect effects are hard-to-verify
- Double counts : only the direct jobs are recognized in international standards.
- Lack of Reassessment later on.

Economic impacts...

Local authorities want to know the needs to accompany airports growth !

👉 Need to find a globally used and standardised input indicators, convincing calculation methodology and output indicators, easy to update.

Negative impacts (as external costs)

Recognized external costs (all modes of transport) :

- *Accidents*
- *Air pollution*
- *Climate change*
- *Congestion and scarcity*
- *Noise*

Specific Air Transport/Airport Impacts

There is no European global study on specific impacts of air transport (and airports). One study proposes a list of impacts to value :

- Climate change : CO² and Nox and local air quality (particulates matters)
- Ozone layer depletion
- Noise
- Congestion/scarcity
- Soil and Water pollution (Solid and liquid waste)
- Safety risk, including cost of indirect land use due to the risks
- Impacts of airports infrastructure **including cost of indirect land use due to noise zone**
- Impact on nature and landscape, and **community disruption.**

- there is **no global study on health impacts of the airport specific air pollution.**

European perspective of greening transport (2008)

European « Greening Transport » Strategy

European priority of internalisation is the climate change cost. So, based on the external cost measurement, the Commission :

- Proposed the revision of the Eurovignette Directive (charging the heavy goods vehicles) and a Directive on passenger car-related taxation. (.....)
- Considered that the Single Sky Strategy contributes to reduce carbon emission and is negotiating the recent ICAO agreement to reduce CO² emissions, from 2020.
- Drawing up a proposal with the aim of reducing air transport NOx emissions. (Nox and particulate matters are calculated on some airport –CDG, Heathrow,.....-, but not shared with local actors)

European perspective of greening transport

- **E.U Commission published in 2008 a handbook on external costs in the transport sector, after financing a best practises analyse. In lack of value, this European handbook propose some default value (i.e. for the unit noise value).**
- **The Commission, which needed external costs value for the “internalisation of external costs of transport European strategy” recognized the handbook can be improved....And it’s improved (Update in 2014)**

2014 : Updated the 2008 European « IMPACT Guide »

RICARDO-AEA



Update of the Handbook on External Costs of Transport

Final Report

Report for the European Commission:

DG MOVE

Ricardo-AEA/R/ ED57769

Issue Number 1

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**Transport and
Environmental
Policy
Research**



2014 Handbook on External Costs of transport

Recalls that : part of environmental impacts could be seen as already paid for, as energy taxes and environmental charges (e.g noise-related charges on airport)

...But Kerosene is tax-exempted, ...and Air Transport is also tax-exempted to the final consumption of petroleum products

2014 Handbook on External Costs of transport

Update the state of art (particularly for roads) :

There are methodologies to assess :

- **Scarcity (Eurocontrol gathers data allowing costs measures)**
- **Air pollution (up-to-date data emissions factors in EMEP/EEA aviation guidebook – LTO only)**
- **Health costs of air pollution (TREMOVE data)**
- **Climate change (but high altitude to be considered)**
- **Noise (Default unit value) - health cost of noise, but to be confirmed**
- **Nature and Landscape (compensation approach related to infrastructures)**

focus on external cost of air traffic noise

- Cost highly depends on local factors (density...)
- No unique calculating methodology in Europe : **Each State/airport gets their own methodology.**

*“Concerning air transport, ..It’s **almost impossible to compare values on a broader scale and to present some comparable ranges of value**”.* The Calculation of External Costs in the Transport Sector, Directorate-General for Internal Policies, EP.2009

- No European study on unit value of noise : E.U proposes default value.
 - Noise cost is valued only in his acoustic impact, not as a factor of global environmental degradation of adjacent areas.
- ☞ Some scientists propose to include these global degradation at the noise cost.

Noise Compensation

States/airports have established takeoffs and landing fees and fines, depending on aircrafts noise level (internalisation), and subsidize soundproofing private and/or public buildings around the airport (compensation).

Each European state has developed his own criteria for taxes and fines.

- 👉 It is almost impossible to compare airport's referentials frameworks**
- 👉 What about the distribution-basis of compensations?...**

Orphan Impacts ?

Orphan Environmental impacts,

- ☞ **Impacts of air transport and airports on landscape, biodiversity, heritage, soil and water quality are not financially valued in Europe.**

A little few studies recommend to intensity research outside of the airport sector, especially infrastructure costs of surface transport, usually analysed as an independent source of impact.

Land take (use) as an externality

Especially in densely populated areas, the issue of scarcity of land and negative spatial impacts of transport activities may be important. Study would be needed for :

- Cost of land scarcity (use of “options value” ?)
- Cost of intensity of land use
- Cost of indirect land use, like noise zone and urban restrictions around the airports.

☞ **This costs are not valued.** (Little few studies in Europe)

Economic and social Impacts around the airport

- Economic redistribution around airports **is not evaluated** (e.g geographical distribution of economic impacts),
- living conditions costs around airports are not evaluated

The main trend is based on “environmental justice” approach, (US concept), according to studies carried on in United states, Great Britain, Germany, Nederland, and East of Europe. A new study has been undertaken around Roissy as well (facts are mapped).

👉 In the best case, **Facts are mapped but not valued.**

Internalisation, Compensation : where are we now ?

compensation involving stakeholders : Airport Gouvernance

**Berlin : after prescriptive court orders, Berlin and the
Branderbourg region concluded an agreement with
the local representatives of 12 towns and 3 Berlin
districts**

**Subjects : strategic land and economic issues, as well
as urban sprawls, damages, redistributions, decision-
making process, transport, landscape, urban planing,
....**

compensation involving stakeholders : Airport Gouvernance

Los Angeles :

without any public decision, signature of a “Community Benefits Agreement” between the airport and a local coalition of representatives (trade unions, religious associations, environmental justice associations, disadvantaged people associations..)

Subjects : employment and training, independante expertises when request, sound insulation, support measures fo local development...

Next.....

*“Transport generates other external factors than those analysed (...) **External costs related to the biodiversity, on nature and on the landscape could be treated. These costs are related to the provision of infrastructure and should be envisaged within the framework of reflection on infrastructure policy in Europe. Similarly, external costs related to land use could be analysed.... The scarcity costs in the non-road modes of transport should also be the subject of elaboration of methodological principles. Indeed, the handbook has demonstrated the progress of scientific work in the field. An assessment in 2013 will make it possible to see further progress and to adjust proposed the methodology and to update the proposed external cost values.**”*

**Strategy for the internalisation of external costs – EU Commission
2008**

A clear and shared and transparent framework in Europe would be appreciated...

...Next condition of licence to grow ?