

Activity report 2012

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For Bruitparif, 2012 was a European year. Our work developing a noise index for the general public, as part of the European project Harmonica; our involvement in the Quadmap project, on the issue of quiet areas; and our involvement in the Eurocities network's working group on noise have all given Bruitparif international recognition of its expertise.

Our European conference called «Prevention and management of noise in the city: Overview of good practices in European cities», organised in partnership with the Île-de-France regional council and the City of Paris on 29 and 30 November 2012, was the highlight, with over 130 participants from all around Europe.

In parallel with this work, Bruitparif has also stepped up its missions in the Île-de-France region.

Its measurement network was extended to eight new sectors, meaning that at the end of the year, a total of 34 measurement devices were installed all around the region. Several studies were published, including the results of a noise measurement campaign focused on the Toussus-le-Noble airfield, the conclusion of the experiment concerning the installation of noise measurement devices on rue Jean-Pierre Timbaud in the 11th arrondissement of Paris, the analysis of the experiments on low-noise surfaces on the Paris ring road, as well as a study on social and environmental inequalities around airports.

We also supported 108 local councils to prepare their environmental noise action plan, and 18 new members joined us in 2012, taking our total number of members to 94.

Bruitparif also continued its awareness-raising and communication actions. 350 students from vocational colleges around the region took part in a programme to raise awareness on the noise environment and hearing risk prevention at Stade de France, during French National Hearing Day. We also helped Inter-LGBT, Solidarité SIDA, and Technopol with noise management for the events they organise: respectively the Marche des Fiertés, Solidays, and the Techno Parade.

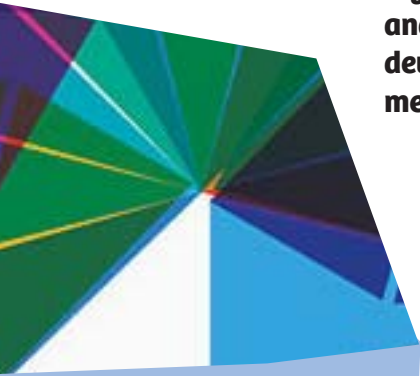
Internally, for the first time, Bruitparif worked on a strategic document with a three-year plan, the aim being to mobilise its administrators and members around a clearly defined, shared project. At the same time, during the second half of 2012, we continued to work on the proposed development of a regional observatory for electromagnetic waves. This project will be defined and adopted in 2013, in order to be continued in the years to come.

It is with great satisfaction that I invite you to discover more about our work over the last year, carried out by a committed team, which is striving every day to make Bruitparif vital for the Île-de-France region!

I hope you enjoy reading this report.

A handwritten signature in black ink, reading 'Julie Nouvion'. The signature is written in a cursive style with a horizontal line underneath.

Julie Nouvion
Chairperson of Bruitparif



Creation of a strategic plan

During the seminar of Bruitparif's members, held in October 2011, many questions concerning the future development of Bruitparif were raised, both in terms of changes to its mission and its future funding.

In this context, Bruitparif's administrators, in particular the representatives of the State and the regional council, wanted a five-year development plan for Bruitparif, in order to prioritise the actions that the observatory is to carry out and ensure the long-term funding of its public-interest projects.

Therefore, throughout 2012 Bruitparif worked on a strategic plan for the association for the 2013-2016 period.

The final version of this plan was adopted in May of 2013.

Eight years after its creation, on the initiative of the regional council of Île-de-France and at the request of environmental protection associations, Bruitparif pursues its development. With 18 new members joining in 2012, the association now has 94 members working to improve the quality of the noise environment in Île-de-France.

Functioning of the association

2012 was punctuated by four «bureau» meetings, four Board of Administrators' meetings, and one Annual General Meeting:

- ◆ 13 january: Board meeting
- ◆ 6 march: Bureau meeting
- ◆ 20 march: Board meeting
- ◆ 12 april: AGM
- ◆ 21 june: Bureau meeting
- ◆ 6 july: Board meeting
- ◆ 18 september: Bureau meeting
- ◆ 2 october: Board meeting
- ◆ 26 november: Bureau meeting

At the Board of Administrators' meeting of 13 January 2012, EELV regional councillor Mrs Julie Nouvion was voted Chairperson of the association. She succeeded Mr Abdelali Meziane, who stepped down from his position in December 2011.



Board of administrators' meeting
13 january 2012

18 new members in 2012

◆ **Six towns:** Colombes (Hauts-de-Seine), Clichy-la-Garenne (Hauts-de-Seine), Fontenay-sous-Bois (Val-de-Marne), Gagny (Seine-Saint-Denis), Montigny-le Bretonneux (Yvelines), Bry-sur-Marne (Val-de-Marne).

◆ **Seven EPCIs:** The agglomeration community of Mont-Valérien (Hauts-de-Seine), the agglomeration community of Europ'Essonne (Essonne), the agglomeration community of Terres-de-France (Seine-Saint-Denis), the agglomeration community of Vallée de Montmorency (Val-d'Oise), the agglomeration community of Brie Fran-

cienne (Seine-et-Marne), the communal community of Vallée de l'Oise et des Impressionnistes (Val-d'Oise), the communal community of Pays de France (Val-d'Oise).

The following bodies also joined in 2011:

- ◆ The UFH as a professional association.
- ◆ The associations ACRENA, CIRENA, AREC et JNA.

Four members also left the association: the town of Bourg-la-Reine, CODEV 94, CRAFAL, and the association «Vie Quotidienne et Audition».

94 members in total

- ◆ Six representatives from **government services and public establishments.**
- ◆ Six representatives from **Île-de-France regional council.**
- ◆ 49 representatives from **other territorial authorities and local public establishments:** Eight departments in the Île-de-France region, 20 EPCIs and 21 towns.
- ◆ Nine representatives from the **economic sector.**
- ◆ 11 representatives from **professional organisations dealing with acoustics or hearing, information organisations, studies and research seeking to characterise noise and its impact.**
- ◆ 13 representatives from **approved environmental protection associations and qualified persons.**



Signature of a framework agreement with the DGAC

LISTE DES 94 MEMBRES DE BRUITPARIF FIN 2012								
en gras : membres du bureau ; sur fond jaune : membres du Conseil d'Administration								
COLLEGE	ORGANISME	nombre de membres	millièmes de voix	COLLEGE	ORGANISME	nombre de membres	millièmes de voix	
1er collège : collège des services et des établissements publics de l'Etat	Préfecture de Région	1	41,67	3ème collège : collège des autres collectivités territoriales et établissements publics locaux	Conseil Général 75	1	11,36	
	Préfecture de Police	1	41,67		Conseil Général 77	1	11,36	
	DRIEA	1	41,67		Conseil Général 78	1	11,36	
	DRIEE	1	41,67		Conseil Général 92	1	11,36	
	ARS	1	41,67		Conseil Général 91	1	11,36	
	DGAC - DAC Nord	1	41,67		Conseil Général 93	1	11,36	
Total 1er collège Etat	6	250			Conseil Général 94	1	11,36	
2ème collège : collège de la Région Ile-de-France	Conseil Régional	5	208,33		Conseil Général 95	1	11,36	
	CESER	1	41,67		CA Val de Bièvre	1	0,83	
Total 2ème collège Région	6	250			CA Mont Valérien	1	0,83	
4ème collège : collège des activités économiques	ADP	1	13,89		CA Plaine Commune	1	0,83	
	CRCI	1	13,89		CC Le Parisis	1	0,83	
	RATP	1	13,89		Ville de Gonesse	1	0,83	
	SNCF	1	13,89		Ville d'Engien-lez-Bains	1	0,83	
	RFF	1	13,89		Ville de Poissy	1	0,83	
	VALOPHIS Habitat	1	13,89		CC Charenton-le-Pont - Saint Maurice	1	0,83	
	Consortium Stade de France	1	13,89		Ville de Rungis	1	0,83	
	URF	1	13,89		Ville de Conflans-Sainte-Honorine	1	0,83	
	UFH	1	13,89		Ville de Vincennes	1	0,83	
Total 4ème collège des Activités économiques	9	125			Ville d'Orgeval	1	0,83	
5ème collège : collège des organismes professionnels traitant de l'acoustique ou de l'audition, des organismes d'informations, d'études et de recherche cherchant à caractériser le bruit et ses impacts	ADEME Ile de France	1	12,50		Ville de Chevilly-Larue	1	0,83	
	Syndicat CIFC GIAC	1	12,50		Ville de Saint-Germain en Laye	1	0,83	
	CIDB	1	12,50		CA Marne et Charteraine	1	0,83	
	Observatoire du Bruit de Paris	1	12,50		CA GPSO	1	0,83	
	ORS / IAU Ile de France	1	12,50		CA Haut Val-de-Marne	1	0,83	
	ACNUSA	1			CA Mantes-en-Yvelines	1	0,83	
	Syndicat ORL	1	12,50		Ville de Vitry-sur-Seine	1	0,83	
	ORL 75	1	12,50		Ville de Saint-Denis	1	0,83	
	ASTEE	1	12,50		Ville de Puteaux	1	0,83	
	CAUE 94	1	12,50		Ville de Sevran	1	0,83	
CODAL-PACT 94	1	12,50	Ville de Saint-Brice-sous-Forêt		1	0,83		
Total 5ème collège des organismes professionnels	11	125			Ville de Lésigny	1	0,83	
6ème collège : collège des associations et personnalités qualifiées	ADVOCNAR	1	9,62		Argenteuil-Bezons l'agglomération	1	0,83	
	UFC-Que Choisir IdF	1	9,62		SAN Sénart	1	0,83	
	Ile de France Environnement	1	9,62		CA Hauts de Bièvre	1	0,83	
	Léo Lagrange Ile-de-France	1	9,62		CC Plateau Briard	1	0,83	
	CGL	1	9,62		CA Est Ensemble	1	0,83	
	ACRENA	1	9,62		CAVAM	1	0,83	
	CIRENA	1	9,62		CCVOI	1	0,83	
	APEC	1	9,62		CA Europ'Essonne	1	0,83	
	JNA	1	9,62		CA de la Brie Francilienne	1	0,83	
	France Acouphènes	1	9,62		CC du Pays de France	1	0,83	
	Pascal Marotte - Personnalité qualifiée	1	9,62		Ville de Clotchy-la-Garenne	1	0,83	
	Michel Vampouille - Personnalité qualifiée	1	9,62		Ville de Bry-sur-Marne	1	0,83	
	Marie Chavanon - Personnalité qualifiée	1	9,62		Ville de Montigny-le Bretonneux	1	0,83	
	Total 6ème collège des associations et personnalités qualifiées	13	125			Ville de Gagny	1	0,83
						Ville de Fontenay-sous-Bois	1	0,83
					Ville de Colombes	1	0,83	
					CA Terres de France	1	0,83	
				Total 3ème collège des autres collectivités territoriales	49	125		

Installation of a measurement device



January	13	Election of Ms Julie Nouvion as Chairperson of Bruitparif
	17	Bruitparif's involvement in «Semaine du Son»
	31	Awareness-raising day at the Arche de Guédon high school in Torcy (Seine-et-Marne)
February	3	Awareness-raising day at the Jean-Baptiste Poquelin high school in Saint-Germain-en-Laye (Yvelines)
	8	Meeting of the French-speaking working group of noise observatories
	16	Training course for educators of the agglomeration community of Val de Bièvre (Val-de-Marne)
March	8	Awareness-raising day with 350 students at the Stade de France, as part of JNA 2012
	12	Retrieval of results from the noise measurement campaign around the Toussus-Le-Noble airfield (Yvelines)
	16	Training course for educators from Vincennes (Val-de-Marne)
	22	Training sessions entitled «preparing your environmental noise action plan»
	28	Training course for educators of the «Health Bus» operated by the Val-de-Marne departmental council.
	29	Publication of the noise measurement report along road infrastructures in the Val-de-Marne department.
	29	Publication of the territorial acoustic diagnostic of roadways and public buildings of the Val-de-Marne department.(94)
	3-5	Bruitparif takes part in the Sustainable City trade fair organised by AMIF
	April	12
12		Approval of the charter for regional noise mapping at the AGM
17		Involvement of Bruitparif in the Scientific Committee of the DEBATS project
20		Installation of a measurement device along the A6 motorway near Villabé (Essonne)
May	2	Bruitparif takes part in a public meeting in the 13th arrondissement of Paris, on the issue of noise nuisances in the Butte aux Cailles neighbourhood
	4-9	Installation of five measurement devices as part of an experiment on new low-noise road surfacing materials on the Paris ring road at Porte de Vincennes
	24	Bruitparif takes part in a public meeting in the 20th arrondissement on the issue of pollution generated by the Paris ring road
June	6	Awareness-raising session at the Jacques Decour high school in the 9th arrondissement of Paris
	21	Training sessions entitled «preparing your environmental noise action plan»
	22-24	Awareness-raising and noise measurements at the «Solidays» music festival
	30	Awareness-raising and hearing risk prevention at the Marche des Fiertés



8 march: JNA

Seminar of 29 november 2012



July	3	Organisation of the Harmonica project's first workshop, with a press conference, in Bruitparif's offices
	5	Bruitparif meeting with the regional council on the subject of the «Ondesparif» project
	17	Installation of a combined air/noise measurement device on the Paris ring road at Porte d'Auteuil
	30	Installation of a measurement device in Villeneuve-Saint-Georges (Val-de-Marne)
August	14	Installation of a combined air/noise measurement device in Melun (Seine-et-Marne)
	19-22	Involvement of Bruitparif at the Internoise international conference in New York
September	-	Publication of the measurement results from the Marche des Fiertés parade
	15	Involvement in the noise management of the Techno Parade
	20	Training sessions entitled «preparing your environmental noise action plan»
	21	Approval of Bruitparif's work by the Scientific Committee of the SURVOL project
	26	Publication of a summary review on noise generated by the Paris ring road
	26	Installation of a combined air/noise measurement device in Pantin (Seine-Saint-Denis)
	-	Surveys in the field for the Harmonica project
October	24	Installation of a device for the measurement of air traffic noise in Chaumontel (Val d'Oise)
	26	Involvement of Bruitparif in the «Respirations d'Enghien» seminar
	29	Publication of the results of unplanned acoustic measurements carried out in ten nightclubs in the Paris region in 2012
	29	Publication of the results of one year's noise measurements in Saint-Brice-sous-Forêt (Val d'Oise)
	29	Publication of the acoustic results after three months of the experiment on new road surfaces on the Paris ring road
	30	Publication of action sheets entitled «bruit et vitesse» and «bruit et revêtement acoustique»
	-	Publication of the results of measurements carried out at the Solidays festival and the Techno parade
November	9	Installation of a measurement device on the left bank of quai Anatole France, in the 7th arrondissement of Paris
	28 et 30	Meeting of the Working Group Noise of the Eurocities network in Bruitparif's offices
	29	Organisation of a European conference called «Prevention and management of noise in the city: Overview of good practices in European cities», in partnership with the Île-de-France regional council
	30	Organisation of a presentation of measures to fight noise in the City of Paris and visit to the Porte de Vincennes site on the Paris ring road
December	12	Training session on noise for EHESP students
	13	Training sessions entitled «preparing your environmental noise action plan»
	17	Presentation of the results of the noise measurement experiment on rue Jean-Pierre Timbaud in the 11th arrondissement of Paris to the monitoring committee of the Etats-Généraux de la Nuit (a symposium organised by the City of Paris to fight noise pollution)



Technoparade 2012



With eight new sectors equipped in 2012, the measurement network now boasts 34 operational units

Three combined air/noise measurement devices along roads

During the summer of 2012, Bruitparif installed three noise measurement stations close to road traffic sites that whose air quality levels were already being monitored by Airparif. The roads concerned are avenue Thiers (formerly known as RN6) in Melun (Seine-et-Marne), avenue Jean-Jaurès (formerly RN2) in Pantin (Seine-Saint-Denis), and the Paris ring road at Porte d’Auteuil.

etc.). Improving knowledge about the relationships between air, noise, and traffic to guide the authorities responsible for traffic and the local government in implementing actions that can improve the situation both in terms of noise, air quality, and safety. Indeed, it appears essential to not take measures that, for example, would improve air quality at the expense of noise, or vice-versa.

The reason for setting up these devices was to be able to evaluate noise and air quality at the same time, and to better understand the interactions between these two types of environmental pollution and the traffic conditions, as well as monitoring the impact of changes to traffic levels on noise and air quality (e.g.: changes to the types of vehicles on the road, reducing speed,

Partnerships with the bodies that manage the roads concerned and Airparif should be set up in 2013 in order to be able to share data on the traffic, air quality, and noise levels, in a sufficiently small space of time to allow a detailed study of the relationships that exist between the road traffic conditions, noise, and atmospheric pollution.

Involvement in AFNOR’s normalisation work

In 2012, Bruitparif continued its involvement in AFNOR’s normalisation work in the field of measuring environmental noise. The team was actively involved in several working groups (25 meetings in total) with various AFNOR commissions:

- S30JMINCERT on uncertainties around noise measurement;
- S30MI on noise indicators;
- S30MI E 90 AB: an overall indicator of annoyance caused by noise and vibrations
- S30JI on industrial noise;
- S30J – PR FD S37-117 pertaining to the self-inspection of acoustic measurement devices ;
- Working group on updating the NFS 31-010 standard concerning the characterisation and measurement of environmental noise.



Combined air/noise measurement device in Pantin

A first station installed in a context of critical multi-noise exposure

The first noise maps produced in the Paris metropolitan area revealed that around 66,000 people live in situations of critical multi-noise exposure, i.e. with noise levels on the façades of their homes that exceed the threshold levels for two or three sources of noise (including road noise, rail noise, and/or air traffic noise).

sance for the population, and to guide the authorities’ actions, Bruitparif has started installing measurement devices in the most extreme situations of multi-exposure.

Of these 66,000 people, around 1,100 people apparently live in areas of triple exposure (threshold values exceeded for all three sources of noise).

The first sector to be monitored in this way is located in the town of Villeneuve-Saint-Georges (Val-de-Marne). This site is subjected to traffic noise from the former RN6 road, as well as the railway, and aircraft taking off and landing at Orly airport.

In order to have more detailed information allowing better documentation of noise levels, to better understand the nui-

The measurement device was installed on 30 July 2012 and has been operational since then. It aims to record the combined noise levels from each source, and to identify their contribution to the ambient noise.

Two sectors monitored to quantify the impact of the change in road surface on noise levels

Measurement devices were set up by Bruitparif in two sectors in 2012, in order to identify the acoustic impact of new road surfaces and monitor the effectiveness of noise reduction solutions over time.

The first sector concerns a 3.5 km section of the A6 motorway between Lisses and Villabé, which last summer saw the infamous concrete slabs (which were over 50 years old) replaced by a quieter road surface. In order to measure the effectiveness of this new road surface in terms of noise reduction, Bruitparif installed a measurement device in the town of Villabé on 20 April 2012, several weeks

before the roadworks actually started.

At the start of May 2012, Bruitparif also set up five permanent measurement devices in order to quantify the acoustic impact of the experiment on new road surfaces on the Paris ring road on a 200 m segment between Porte de Vincennes and Pont de Lagny. The first device was set up on the central reservation (directly next to the traffic) with the four others on the front of residential buildings adjacent to the ring-road. One of them was positioned outside the perimeter of the experiment so as to be used as a «control» device, to evaluate the effectiveness of the system.



Permanent measurement device located on the Paris ring road, near Porte de Vincennes

A measurement device installed on the upper left bank of the Seine in Paris

A noise measurement device (a Ladybird energy-autonomous system fitted with a solar panel, made by Azimut Monitoring) was made operational on 9 November 2012, on Quai Anatole France in the 7th arrondissement of Paris (upper left bank)

in order to quantify the acoustic impact on residents of the possible noise increase that may be caused by the redevelopment of the left bank of the Seine. This device will be left in place for the entire duration of the redevelopment, and for the following year.

An additional «expert» measurement device installed in the north of the Val d'Oise department, as part of the SURVOL project

A Rion NA37 expert measurement device was set up on 24 October 2012 in Chaumontel. Its purpose is to monitor noise pollution generated by aircraft

flying over the site to or from Paris-CDG airport, taking flight paths to or from the north of the Île-de-France region.



Measurement device installed in Chaumontel as part of the SURVOL project



Melun (77), Ex-RN6
Station Oper@Ex



Villabé (91) -A6
Station Oper@Ex

Réseau de mesure de Bruitparif au 31 décembre 2012

Département	Site de mesure	Contexte de mesure	Type de matériel	Contexte spécifique	Date d'entrée dans le réseau
75	Paris 12ème - Rue Coriolis	bruit ferré Gare de Lyon	Agimut		nov-09
	Paris 5ème - Place St Michel	bruit routier + animations...	Agimut		févr-10
	Paris 10ème - Place Stalingrad	multiexposition : routier, ferré (métro aérien)...	Agimut		mars-11
	Paris 14ème - Square du Serment de Koufra	bruit hélicoptères	Oper@Ex	Charte héliport de Paris-Issy-Les-Mx	sept-11
	Paris 18ème - Cimetière de Montmartre	bruit aéronefs (Paris-CDG, Paris Le Bourget et hélicoptères)	Oper@Ex		août-11
	Paris 20ème - bd périphérique Pte Bagnolet	bruit routier	Agimut		mars-11
	Paris 12ème/20ème - bd périphérique Pte de Vincennes	bruit routier	Oper@Ex + 4 Oper@RF	Suivi expérimentation revêtement acoustique	mai-12
	Paris 16ème - bd périphérique Pte Auteuil	bruit routier	Oper@Ex	Observation couplée air/bruit/trafic	août-12
	Paris 7ème - quai Anatole France	bruit routier	Agimut	Suivi impac sur quais hauts de La fermeture voies sur berge rive gauche	nov-12
92	Boulogne-Billancourt ZAC Seguin Rive Gauche	chantier	Agimut	Partenariat avec GPSO	janu-09
	Issy-Les-Moulineaux Parc dép. de L'Île-St-Germain	bruit hélicoptères	Oper@Ex	Charte héliport de Paris-Issy-Les-Mx	juin-08
	Sèvres - Parc Brimborion	bruit hélicoptères	Sonopode + Rion NA37	Charte héliport de Paris-Issy-Les-Mx	août-11
93	Pierrefitte-sur-Seine Espace Paul Eluard sur Ex RN1	bruit routier	Oper@Ex	Partenariat avec CG93 et Plaine Commune réaménagement de l'axe	juin-08
	Pierrefitte-sur-Seine	bruit aéronefs (Paris-CDG et Paris Le Bourget)	OperaRF	Partenariat avec Plaine Commune	juil-08
	Villetaneuse - Collège	bruit ferré et bruit routier	Oper@RF	Partenariat avec Plaine Commune Suivi des évolutions avec Tangentielle Nord à venir	juil-08
	Saint-Denis Immeuble aux abords du Stade de France	bruit festif en lien avec activités Stade de France	Oper@Ex	Partenariat avec Plaine Commune et Stade de France	juin-10
	Saint-Denis Immeuble aux abords du Stade de France	bruit festif en lien avec activités Stade de France	Oper@RF	Partenariat avec Plaine Commune et Stade de France	juin-10
	Pantin - ex RN2	bruit routier	Oper@Ex	Observation couplée air/bruit/trafic	sept-12
94	Villeneuve-Le-Roi - Cité George Brassens	bruit aéronefs (Paris-Orly principalement)	Sonobox + Rion NA37	Projet SURVOL partenariat CG94	juil-11
	Marolles-en-Brie	bruit aéronefs (Paris Orly principalement)	Sonopode + Rion NA37	Projet SURVOL	juil-11
	Villeneuve-Saint-Georges	multi-exposition (route+fer+aérien)	Oper@Ex		juil-12
77	Lésigny	bruit aéronefs (Paris Orly principalement)	Sonopode + Rion NA37	Projet SURVOL	juil-11
	Melun - ex RN6	bruit routier	Oper@Ex	Observation couplée air/bruit/trafic	août-12
78	Conflans-Ste-Honorine	bruit aéronefs (Paris-CDG principalement)	Sonopode + Rion NA37	Projet SURVOL	mai-11
	Bonnelles	bruit aéronefs (Paris-Orly principalement)	Sonopode + Rion NA37	Projet SURVOL	juil-11
91	Ris-Orangis	bruit routier	Agimut	Partenariat avec CA Eury-Centre-Essonne	avr-10
	Villabé - A6	bruit routier	Oper@Ex	Suivi efficacité acoustique revêtement	avr-12
	Limours	bruit aéronefs (Paris-Orly principalement)	Sonopode + Rion NA37	Projet SURVOL	juil-11
95	Saint-Prix	bruit aéronefs (Paris-CDG principalement)	Sonopode + Rion NA37	Projet SURVOL	mars-11
	Sannois	bruit aéronefs (Paris-CDG principalement)	Sonopode + Rion NA37	Projet SURVOL	juin-11
	Saint-Martin du Tertre	bruit aéronefs (Paris-CDG principalement)	Sonopode + Rion NA37	Projet SURVOL	mai-11
	Saint-Brice-sous-Forêt	bruit aéronefs (Paris-CDG principalement)	Sonopode + Rion NA37	Projet SURVOL	sept-11
	Gonesse	bruit aéronefs (Paris-CDG principalement)	Sonobox + Rion NA37	Projet SURVOL Partenariat avec Gonesse	oct-11
	Chaumontel	bruit aéronefs (Paris-CDG principalement)	Sonobox + Rion NA37	Projet SURVOL	oct-12



Saint-Brice-sous-Forêt (95)
Sonopode + Rion NA37



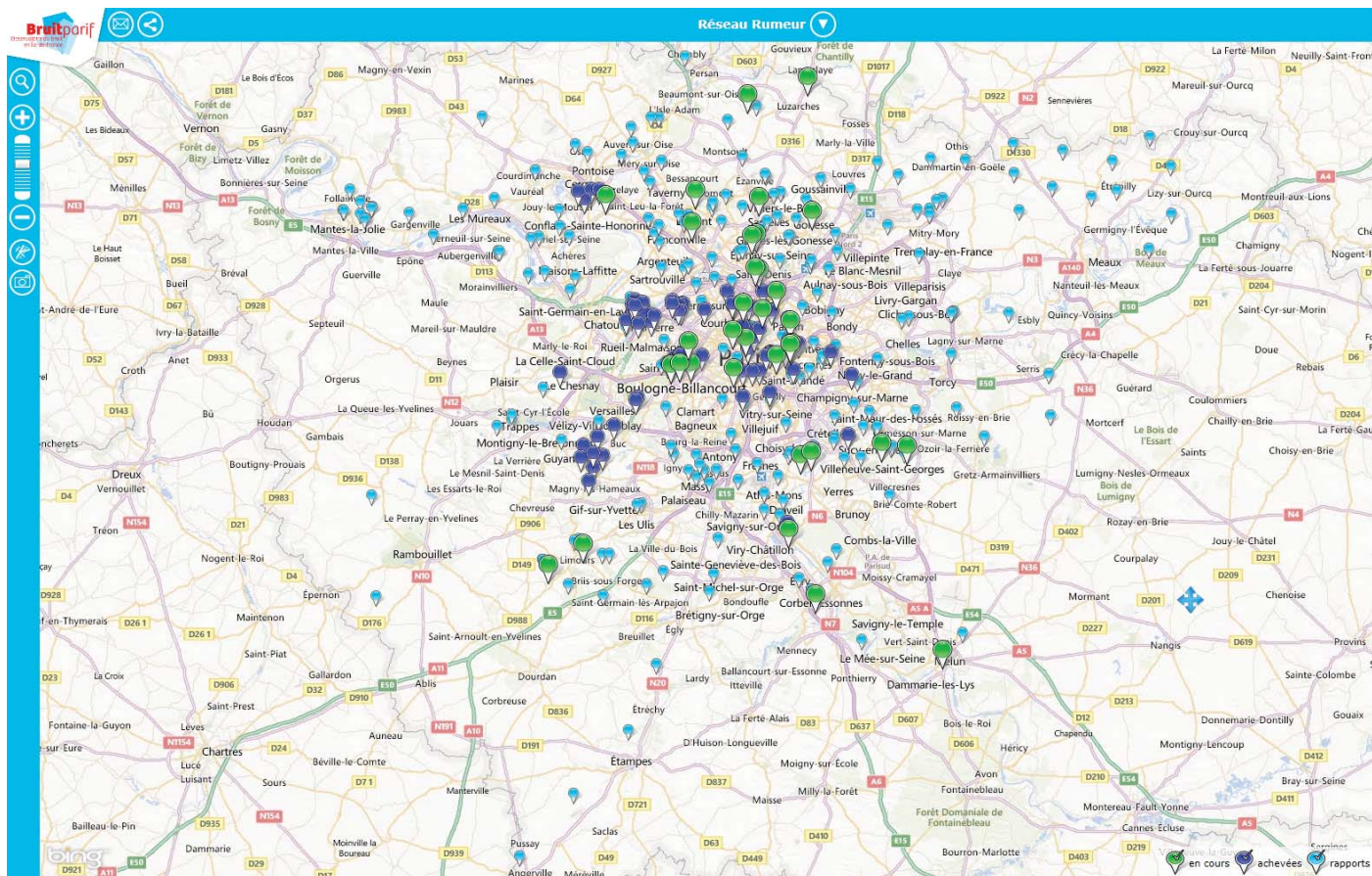
Villeneuve-le-Roi (94), cité Georges Brassens
Sonobox + Rion NA37



Paris, 14th arrondissement, square du serment de Koufra.
Oper@Ex measurement device



Sèvres (Hauts-de-Seine), Brimborion
Sonopode + Rion NA37



Data consultation interface for the Rumeur network:
<http://rumeur.bruitparif.fr/>



Conflans-St-Honorine (Yvelines)
Sonopode + Rion NA37



Villetaneuse (Seine-Saint-Denis), Lucie
Aubrac secondary school
Oper@RF measurement device

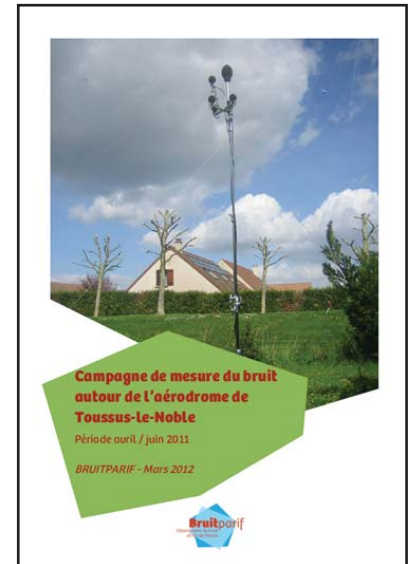
Results of the measurement campaign around the Toussus-Le-Noble airfield

In March 2012, Bruitparif published the results of its noise measurement campaign around the Toussus-Le-Noble airfield, which there are around 102,000 flights to or from every year (source: ADP - 2010).

The results were presented on 12 March 2012 to representatives from the different bodies (residents associations, local authorities, the airfield's users, ADP, DGAC, the Préfecture, etc.) that make up the monitoring committee of the airfield's environmental charter, and which were involved early in the study, in particular during the

phase of selecting the measurement sites.

This measurement campaign made it possible to establish an objective review of the acoustic environment around the Toussus-Le-Noble airfield. Although the regulatory noise threshold of 55 dB(A) for the Lden indicator was not exceeded on any of the nine sites documents, the disturbance factors for the local population are very real because of the number and the repetitive nature of the noise events related to air traffic that occurs, in particular at the weekend



Analysis of measures carried out as part of the DEBATS project

Bruitparif is a partner in an epidemiological research programme called DEBATS, launched by the French Ministry for Health and ACNUSA, which is coordinated by the IFSTTAR. To this end, Bruitparif prepared a protocol for carrying out acoustic measurements and had the opportunity to test it as part of the pilot study with 12 residents living near the Paris-CDG airport. These residents wore an actimeter for seven nights and kept a sleep diary in order to provide indicators for evaluating the quality of their sleep. In parallel, their exposure to noise, in particular aircraft noise, was monitored using a measurement system set up by Bruitparif. During 2012, Bruitparif was able to process the data collected, produce a certain number of acoustic indicators (e.g. energy- or event-based indicators) and to analyse the correlation matrices between these indicators and the sleep quality indicators produced by the Sleep Centre of the Hôtel Dieu hospital in Paris. The conclusions of these initial analyses showed that there seems to be a greater correlation between quality of sleep and event-based indicators (NA for example) than with energy indicators. The work will continue in 2013/2014 with the realisation and the exploitation of acoustic measurements in 100 subjects as part of the complete study.



Review of the experiment concerning the installation of noise measurement devices on rue Jean-Pierre Timbaud, in the 10th arrondissement of Paris

Since the start of the ban on smoking in public places, tensions have been mounting between locals and the owners of bars, concert halls and clubs, on the issue of noise nuisances. In Paris, the mayors of each arrondissement and public players are under great pressure to resolve conflicts over the use of public space between the owners of nightlife venues, their customers, and the inhabitants of the neighbourhoods and to try and find solutions that meet the expectations of all those concerned.

In this context, Bruitparif suggested an experiment using noise measurement devices, in order to provide the different players with objective data for characterising noise levels and to initiate work together to find solutions and define objectives for improving the situation.

With support from the City of Paris, and as part of the European project Life+ Harmonica, coordinated by Bruitparif, a pilot experiment was carried out on rue Jean-Pierre Timbaud in the 11th arrondissement over a six-month period between the beginning of May and the end of October 2012.

The measurement system was based on five energy-autonomous devices: Four devices were set up directly next to the sources of noise, opposite establishments that accepted to take part in the experiment, and one was fitted in the middle of the road to record the average noise level.

This data allowed us to better understand the variations in noise levels during the day, depending on the type of day, and provided us with objective elements for characterising the increase in noise generated by customers frequenting the bars. Thus, it was possible to draw several conclusions:

- ◆ The noise levels are within the average levels observed in Paris and are less critical than in locations that are highly affected by transport infrastructures, but noise levels at night are significantly

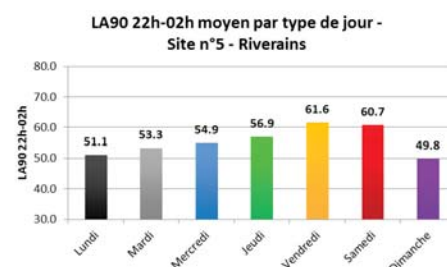
higher than in quieter areas of Paris..

- ◆ The analysis of the variations in noise levels measured depending on the times and types of day highlighted a significant increase in noise when the bars are open and when there is a high number of customers. This increase is particularly notable on Friday and Saturday nights..

- ◆ The detailed analysis of noise variations during the day, in particular in the evening and the first part of the night, highlighted the fact that the noise nuisance generated by customers frequenting the bars manifests itself by an increase in the background noise level and the absence of a quiet time for residents. The study highlighted in particular that the period that could be described as «the road going to sleep» - characterised by a significant fall in background noise levels - starts at around 1.30 - 2 am on Sunday to Wednesday nights, and only around 5 am on Friday and Saturday nights..

- ◆ The experiment was bolstered halfway through to allow the installation of an SMS alert system, which informs the bar owners when the noise levels in front of their bars became excessive and thereby allows them to ask their customers to «lower their voices» out of consideration for the local residents. The system was well received by the bars' owners but technical problems were encountered at the start in July and August, which limited its effectiveness..

During a meeting of the steering committee for the Etats Généraux de la Nuit on 17 December 2012, different stakeholders hailed the relevance of this experiment, which provided them with objective data on noise nuisances related to the bars' activity and allowed calmer discussions; a necessary condition for finding suitable solutions..



First feedback on the experiment on low-noise road surfaces on the Paris ring road

In June 2012, the City of Paris and Bruitparif started an experiment on low-noise road surfaces on a segment of the Paris ring road, in order to test how suitable and how durable this type of solution is, both from an acoustic and a mechanical point of view, for a road that is subjected to a huge load due to the high number of vehicles that take it every day (over 1.2 million vehicles, with up to 270,000 vehicles per day in certain places).

The segment that was chosen for the experiment is a 200 m section located on the GPRU site at Porte de Vincennes, between Pont de Lagny and the Porte de Vincennes junction.

From 25 to 29 June 2012, the Road Maintenance Department of the City of Paris and Colas re-laid all four traffic lanes, as well as access ramps and slip lanes on this section, with Rugosoft® and Nanosoft® (Rugosoft® on the inside lanes and Nanosoft® on the outside lanes).

Bruitparif set up five noise measurement devices in order to evaluate the effectiveness of the solution for reducing noise. The first one was installed on the central reservation (directly next to the traffic), three more are on the façades of residential buildings along the experimental section, and the last one was positioned outside of the experimentation area in order to be used as a «control». To complete this set-up, digital audio recordings were made on the façade of buildings and in a vehicle, using a device capable of recording noise levels and reproducing them as they are perceived by the human ear. This made it possible to document the improvement obtained in terms of auditory perception for residents and drivers.

Three months after the section was resurfaced, the analysis of measurement data allowed the following initial results:

- ◆ Noise levels at the source were reduced by 7.5 dB(A) on average, which is the equivalent of what could be obtained by dividing the amount of traffic by six (all other conditions being equal).

- ◆ On the façade of buildings of the most affected residents, the noise was reduced by between 4.1 and 4.3 dB(A), the equivalent of reducing the amount of traffic by around 70 %.

- ◆ However, the exposure levels remain above threshold values, especially at night.

- ◆ When we analyse the frequency distribution of the improvements obtained, we can see that the improvements were most significant (up to -7 dB in certain residential areas) for the frequencies between 1000 and 2000 Hz, which is the range of frequencies for which the ear is most sensitive, and within the range of the human voice.

- ◆ The noise levels are lower whatever the type of day (week day or weekend) or the time of day. The lowest decreases can be seen during periods of high congestion. Nevertheless the improvement remains significant even in these conditions (around -5.6 dB(A) at the source and -3 dB(A) in residential locations), which tends to illustrate that the road surfaces remain effective even when the traffic speed is low and that they may even be effective in absorbing engine noise.

- ◆ Moreover, the most significant improvements are at times when the noise levels are highest, which is particularly beneficial.

This first review, after three months, has therefore provided very encouraging results as to the effectiveness of low-noise road surfaces in reducing the exposure to noise of people that live along the Paris ring road. However, it also shows that additional actions must be envisaged to bring noise levels in line with regulatory thresholds. Furthermore, it appears necessary to continue monitoring and analysing the new road surface for several more months in order to ensure that the acoustic performance and the mechanical qualities of the new surface are capable of withstanding the extremely high traffic load on the ring road.



Permanent measurement device located on the Paris ring road, near Porte de Vincennes

Results of one year of noise measurements in Saint-Brice-sous-Forêt

In September 2011, Bruitparif installed an expert measurement device within a Sonopode® in the town of Saint-Brice-sous-Forêt in the Val d'Oise department, in order to record the noise levels generated by air traffic.

The town of Saint-Brice-sous-Forêt has the particularity of only being partially included in the PGS because of the existence of two runways in Paris-CDG airport (northern runway and southern runway). Therefore, only the territories located in the north and the south of the town are included in the PGS, as the rest of the town is considered to be under the threshold of 55 dB(A) in Lden, according to the regulatory noise maps drawn up by modelling.

At the request of local residents, Bruitparif therefore positioned the measurement device at the centre of the town, at equidistance between the flight paths of planes that take off or land in the northern runway and those from the southern runway, in order to provide an objective diagnostic by measurement.

The observations shows that the contribution of aircraft noise on the site over a one-year period exceeded 55 dB(A) in Lden, which is the value above which locals can claim subsidies for sound insulation.

The analyses of the measurements from this device also highlighted the high number of overflights that generate over 62 or

65 dB(A) per day. Indeed, 30 % and 18 % of days had values of NA62 and NA65 respectively, which are above the value that ACNUSA considers can represent a serious disturbance for the population concerned and which justifies the locals also benefiting from subsidies for noise insulation.

The measurement results also illustrated that this sector is more affected by the overflight of aircraft taking off (which is the configuration in the case of a westerly wind) than when aircraft are landing at Paris-CDG.

Moreover, no reduction in noise has been noted since the measures to increase landing altitudes for easterly wind configurations have come into force. The comparison of indicators measured between the «before» and «after» periods show an increase that can be explained in great part by a higher proportion of westerly configurations after 17 November 2011 (date on which the new approach altitudes came into force) compared to the «before» period, when there were more easterly configurations (a relatively unusual situation in Île-de-France). Furthermore, it seems that the indicators calculated for each configuration have also increased, which seems to be more due to the high number of aircraft overflights during the «after» period compared to «before», than down to the measures implemented in Saint-Brice-sous-Forêt being counterproductive.



Sonopode installed in Saint-Brice-sous-Forêt



Installation of the measurement device in Fontenay-le Fleury

Other measurements carried out in 2012

◆ Stains (Seine-Saint-Denis): Measurements on three sites located near rail transport infrastructures over one week in February 2012. The measurement data can be consulted on the «Rumeur» website. The measurement report is available on the Bruitparif website.

◆ Saint-Denis (Seine-Saint-Denis): Measurements on a site located near several major roads (A1, RN1, and RN186) over one week in June 2012. The mea-

surement data can be consulted on the «Rumeur» website. The measurement report is available on the Bruitparif website.

◆ Fontenay-le-Fleury (Yvelines): Measurements on a site located near the Saint-Cyr-l'École airfield over two months, from 5 June to 7 August 2012. The measurement data can be consulted on the «Rumeur» website. The data processing and analysis was carried out at the end of 2012, and the measurement

report will be published in early 2013.

◆ Cachan (Val-de-Marne): Measurements on a site located near the A6 motorway over nine weeks from 17 October to 19 December 2012. The measurement data can be consulted on the «Rumeur» website. The data will be processed early 2013 and published during the first quarter.

◆ Rueil-Malmaison (Hauts-de-Seine): Roaming measurements on four sites located near road infrastructures. Four eight-week measurement periods were carried out during 2012. The measurement data can be consulted on the «Rumeur» website.

◆ Avenue de Clichy in Paris: Measurements on three sites before the start of redevelopment works on the avenue. The work included a decrease of the speed limit to 30 km/h (6 weeks of measurements, from 11 May to 27 June 2012). This site will be monitored again after the works (September/October 2013) and then two years after the original measurements (May/June 2014). A report will then be prepared to highlight the acoustic impact of the redeve-

lopment of the road. The measurement data can be consulted on the «Rumeur» website.

◆ Banks of the Seine in Paris: Measurements on three sites near the banks of the Seine before their redevelopment (one week of measurements for each site, carried out successively between 9 November and 13 December 2012). A second series of measurements will be carried out on these three sites (left bank of the Seine close to the Vinci car park, Quai des Grands Augustins, and Port des Champs Elysées) once the redevelopment of the banks of the Seine has been completed, in order to record the change to the sound environment and the modification of the noise landscape caused. The measurement data can be consulted on the «Rumeur» website.

◆ Prior to the installation of complementary permanent measurement devices intended to record the impact of the noise of aircraft on a pilot territory in the Val d'Oise department (CAVAM, CA Val et Forêt, and Enghien), acoustic measurements were carried out over several days on certain sites in order to test their relevance.



Measurement device in Cachan

Development of an operational method for identifying zones exposed to multiple noise sources

In 2010, the DGPR entrusted the Strasbourg LRPC with the coordination of a study on multi-exposure to transport noise. The purpose of this study is to apply and evaluate a method for identifying zones exposed to multiple noise sources on real sites, then to suggest solutions if need be. The Strasbourg LRPC put together a multi-disciplinary team, including Bruitparif and the Lyons CETE, Acoucité, ENTPE, and IFSTTAR. The work on this issue was stepped up in 2012. The study includes several stages.

The sites for the study were selected in 2012, based on the GIS used to produce the environmental noise maps. Four types of multi-exposure were taken into consideration: road/rail, road/air, rail/air, and road/rail/air. Bruitparif carried out the analysis using the GIS for the Île-de-France region. Eight sites were chosen, with five in Île-de-France that systematically included aircraft noise:

- Paray-Vieille-Poste (Essonne) / Athis-Mons (Essonne) (road/air).
- Saint-Brice-sous-Forêt (Val-d'Oise) (road/air).
- Goussainville (Val-d'Oise) (rail/air).
- Villeneuve-le-Roi (Val-de-Marne) (rail/air).

- Villeneuve-Saint-Georges (Val-de-Marne) (road/rail/air).
- Caluire (Rhône) (road/rail).
- Lyon 6 (Rhône) (road/rail).
- Bourg-lès-Valence (Drôme) (road/rail).
-

A multi-exposure indicator created by extrapolating the Miedema work on noise pollution from single transport noise sources was tested as part of this study. This indicator was mapped at building level on the eight sites studied, using environmental noise maps. Bruitparif was responsible for this task on sites in Île-de-France.

A survey of 1,000 residents on the sites studied was carried out by IPSOS at the end of 2012. The questionnaire was created essentially by IFSTTAR, ENTPE, and Acoucité, with technical support from IPSOS. The main objective of the survey was to evaluate how accurately the multi-exposure indicator reflects the residents' feeling. The other questions were intended to provide material for upcoming research on the issue of exposure to multiple sources of transport noise. The final element of the study is in-situ acoustic measurements. Bruitparif is responsible



Site subjected to multiple noise sources in Villeneuve-St-Georges

for carrying out these measurements on the five sites in the study in Île-de-France. Bruitparif's work on this study (exploitation of the GIS, acoustic measurements, and statistical analysis) will continue in 2013.

Study of the relationships between the socio-economic characteristics of populations and environmental data in the area concerned by the SURVOL study

The Regional Health Agency of Île-de-France has tasked Bruitparif with creating a GIS (Geographical Information System) dedicated to the SURVOL project, with the aim of analysing the relationships between social inequality and exposure to noise and atmospheric pollution around the main airport hubs in Île-de-France, and to monitor how they develop over time.

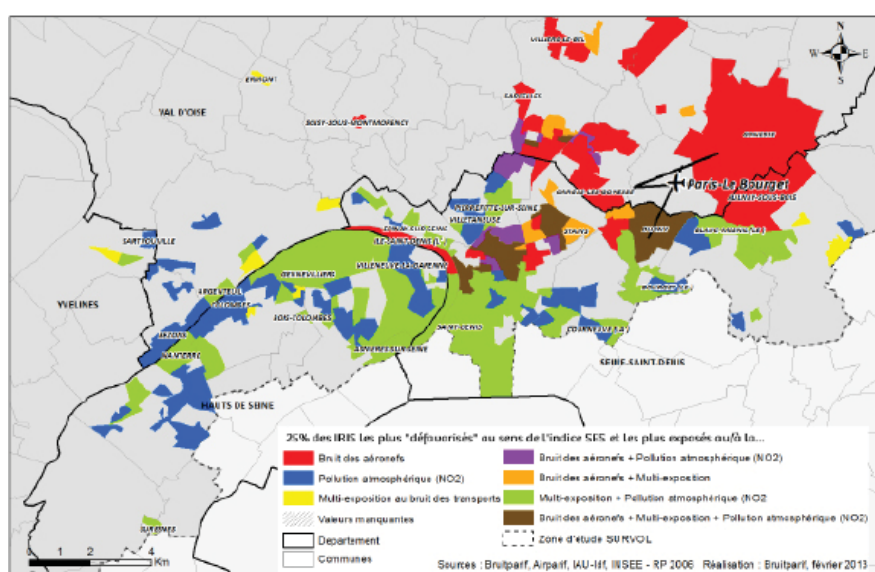
The GIS was developed in 2012 using socio-economic data supplied by INSEE, the data from noise maps consolidated by Bruitparif, and air quality data provided by the study's partner, Airparif.

Once the SIG was set up, Bruitparif was tasked with coordinating a study aiming to cross-tabulate socio-economic data with environmental data related to noise and atmospheric pollution in order to be able to provide the first elements characterising potential social inequalities related to exposure to noise and/or atmospheric pollution within the area covered by the SURVOL project.

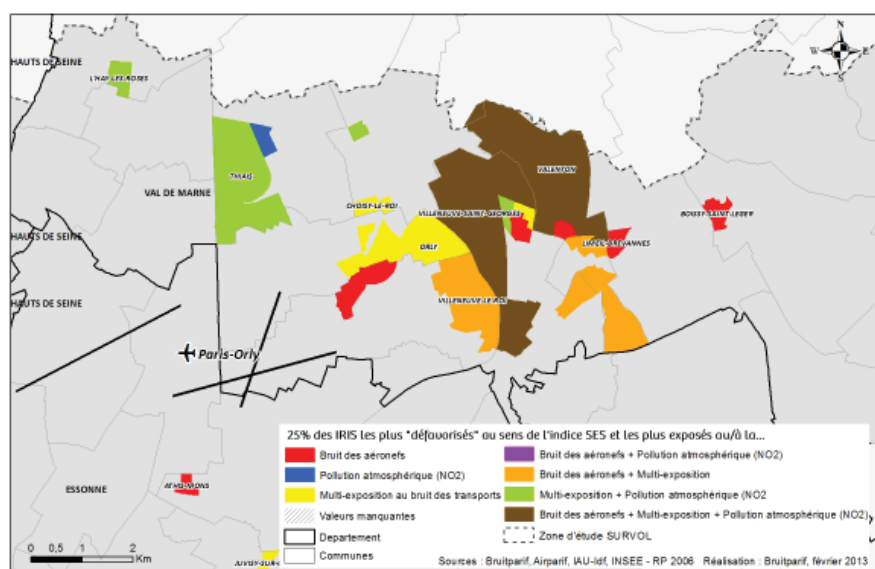
The work first of all involved selecting indicators of social inequality and indicators of exposure to noise and atmospheric pollution that could be calculated for the entire area of study and by IRIS (the smallest geographical unit of measurement for which complete census data is available).

The statistical analyses carried out have highlighted relationships that cannot be coincidental between socially underprivileged populations and exposure to noise and atmospheric pollution within the areas of study. The study also highlighted the sectors that cumulate high levels of social and environmental inequalities.

Social inequalities and overexposure to pollution by IRIS.
«Northern» area of study



«Southern» area of study



In the face of the significant delays in producing strategic noise maps and action plans, in application of European directive 2002/49/EC, France is now in a pre-litigation phase with the European Commission. In this context, Bruitparif has reinforced its assistance and support for the local authorities concerned in Île-de-France.

Start of the regional mapping project

Based on the limits and weaknesses observed with the first noise mapping, carried out in application of the European directive, Bruitparif has suggested creating a regional noise map in order to have a consistent reference for the whole territory, which is essential for enriching our understanding of environmental noise in Île-de-France and establishing suitable public policies, and is a tool that could be recognised and shared by all regional players involved with fighting noise pollution in Île-de-France. This project will make it possible, among other things, to comply with the requirements of the European directive for the years to come.

for preparing noise maps (data on road traffic, speed of vehicles, 30-zones, areas forbidden to HGVs, cobbled roads, low-noise road surfaces, anti-noise screens, sensitive establishments, etc.). Bruitparif then produced maps based on this input data, which were sent to the town councils mid-March to receive their remarks and additions.

After a phase testing the different acoustic calculation software available, aiming to define the software application that is best suited to the project, all the input data processed and approved was entered into an acoustic calculation model. The first results of the noise modelling of the road

Organisation of the project

The implementation of the project required the creation of several working groups between the end of 2011 and the start of 2012, in order to define the common framework for all players in the project:

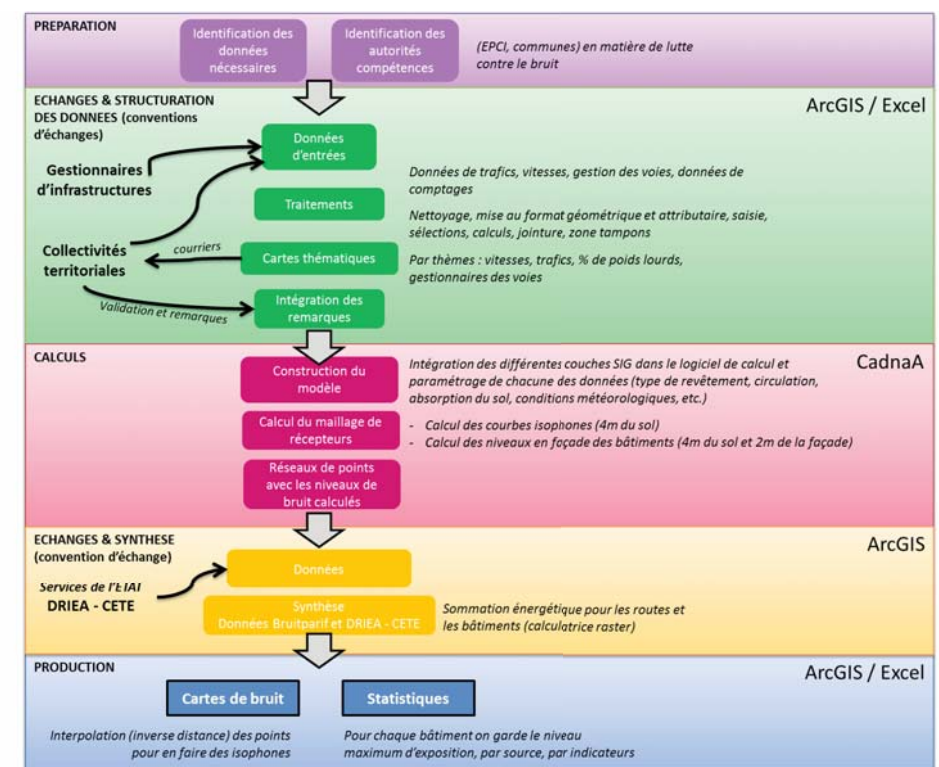
- ◆ a working group on governance, communication, and information,
- ◆ a working group on technical specifications,
- ◆ five specific working groups on the data necessary for the project.

These working groups have provided elements for a proposed «charter for regional noise mapping in Île-de-France», which was approved by the members of the steering committee during the AGM of 12 April 2012. The purpose of this charter is to define the shared methodology for preparing regional noise maps between the players involved in the project.

Project progress

Considering the delay in applying the first deadline of European directive 2002/49/EC, the regional mapping started with the part of the Essonne department that is included within the Paris metropolitan area.

Right from the start of the year, Bruitparif started to bring together the data necessary



network, including over 3 million vehicles per year (noise maps and statistics on the population's exposure) were obtained at the end of December 2012. The merging of these maps with those concerning the noise from major road infrastructures produced by the Essonne department's local authorities in 2008 will make it possible to produce maps for the entire network and to present them for approval during a technical

committee during the first quarter of 2013.

At the same time, the summary of data already available in the Val-de-Marne department started in April 2012, and the maps using this input data were sent for approval to the towns concerned in mid-June 2012. The feedback from the towns was integrated in December 2012. The

acoustic model should be built and the calculations launched in the first half of 2013.

In order to produce noise maps in the rest of the Île-de-France region, Bruitparif has also initiated research into data available in other departments in Île-de-France during the second half of 2012.



Essonne, road noise map using the Lden indicator

Support for local authorities in preparing their environmental noise action plans in accordance with the European directive

Following the strategic noise maps, European directive 2002/49/EC requires the relevant authorities to produce environmental noise action plans.

In 2012, Bruitparif reinforced its assistance and support for the local authorities concerned. This support takes several forms:

The creation of tools to facilitate the preparation of environmental noise action plans

These tools are available for members to download on the «forum des acteurs» section of the Bruitparif website, subject to registration: <http://forum-des-acteurs.bruitparif.fr/espace-de-travail/ppbe-accompagnement-renforce>

The tools are as follows:

- ◆ a template and annexes to help local authorities prepare their environmental noise action plans,
- ◆ an expert mapping GIS tool allowing local authorities to prioritise their problem areas and locate potential quiet areas,
- ◆ information sheets presenting possible actions for reducing or preventing noise.

To go further when the issues have been identified, in 2012, Bruitparif started pro-

ducing a series of information sheets with concrete information for studying the opportunity for implementing certain types of actions on a given area. The work focused in particular on how to reduce road noise and take noise into account in urban development. All of these information sheets will be made available to Bruitparif members in a folder in 2013. The first information sheets on road noise prevention, entitled «Reducing traffic speed» and «Road surfaces», have been accessible on the Bruitparif website since the end of 2012 (in French).

Support for 108 local authorities

Bruitparif advised or provided information for 108 local authorities preparing their environmental noise action plan: from simple questions on the regulations or methodology for certain authorities, to proofreading specifications or taking part in working groups created by certain member authorities.

Four training days on preparing environmental noise action plans

In order to help local authorities in the region to understand how to use the tools available to them, Bruitparif organised eight free, half-day training sessions, open to anyone. These sessions took place on 22 March, 21 June, 20 September, and 13 December.



«Reducing traffic speed» information sheet

Information, methodological advice, and sharing data with 108 local authorities

Paris	Seine-et-Marne	Yvelines	Essonne
Paris	Bussy-Saint-Martin CA Brie la Francilienne CA Marne et Gondoire CA Melun Val de Seine CA Plateau de Saclay CC Marne et Chantereine Collégien Conches sur Gondoire Conseil Général du 77 Lagny-sur-Marne Lésigny Mitry-Mory Pomponne SAN Sénart SAN Val Maubuée Servon Villeparisis	CA Saint Quentin en Yvelines Chambourcy Coignières Conflans Sainte Honorine Elancourt Guyancourt Issou La Verrière Le Chesnay Le Mesnil Saint Denis Le Port Marly Les Mureaux Limay Maisons Laffitte Mareil-Marly Mézy-sur-Seine Montesson Montigny-le Bretonneux Poissy Saint Germain en Laye Trappes Vaux-sur-Seine Vélizy-Villacoublay	CA Evry Centre Essonne CA Les Lacs d'Essonne CA Plateau de Saclay CA Portes de l'Essonne CA Seine Essonne CA Sénart Val de Seine CA Val d'Orge Corbeil Essonne Ollainville
Hauts-de-Seine	Seine-Saint-Denis	Val-de-Marne	Val-d'Oise
Asnières-sur-Seine Bois-Colombes CA Cœur de Seine CA GPSO CA Hauts de Bièvre CA Mont Valérien CA Sud de Seine Clichy-la-Garenne Colombes Garches Gennevilliers Marne la Coquette Montrouge Neuilly sur Seine Puteaux Suresnes Villeneuve-la-Garenne	Blanc-Mesnil CA Est Ensemble CA Plaine commune CA Terres de France Gagny Montfermeil Neuilly-Plaisance Neuilly-sur-Marne Noisy Le Grand Tremblay-en-France	Bry-sur-Marne CA Val de Bièvre CC Charenton-le-Pont-Saint-Maurice CC Plateau Briard Champigny-sur-Marne Chevilly-Larue CG du Val-de-Marne Fontenay-sous-Bois Ivry-sur-Seine Joinville-le-Pont Le Perreux-sur-Marne Maisons-Alfort Marolles-en-Brie Nogent sur Marne Orly Périgny-sur-Yerres Saint-Maur Valenton Villeneuve-Saint-Georges Villiers sur Marne Vincennes Vitry-sur-Seine	CA Argenteuil Bezons CA du Parisis CA Vallée de l'Oise et des Impressionnistes CA Vallée de Montmorency Ecouen Enghien-les-Bains Sannois Taverny Villiers-Adam



Training on environmental noise action plans in Bruitparif's offices

End of 2012 review on the publication of environmental noise

At the end of 2012, only four environmental noise action plans had been published by the relevant authorities of the Paris metropolitan area; those of Clichy-sous-Bois, Pantin, SAN Sénart, and CA GPSO.

Nevertheless, around forty local authorities are actively working on their plan:

- ◆ the City of Paris,
- ◆ in the Hauts-de-Seine department: CA Cœur de Seine, CA Hauts-de-Bièvre, CA Mont Valérien, CA Sud de Seine, Clichy-la-Garenne, Colombes, and Montrouge,
- ◆ in the Seine-Saint-Denis department: CA Plaine Commune and Montfermeil,
- ◆ in the Val de Marne department: CA Val de Bièvre, CC Charenton-le-Pont-Saint-Maurice, CC Plateau Briard, Champigny-sur-Marne, Chevilly-Larue, Fontenay-sous-Bois, Ivry-sur-Seine, Joinville-le-Pont, Maisons-Alfort, Rungis, Valenton, Ville-neuve-Saint-Georges, Vincennes, and Vitry-

sur-Seine,

- ◆ in the Seine-et-Marne department: CA Brie la Francilienne, CA Marne-et-Chantepierre, Servon, Villeparisis, and Villiers-sur-Marne,

- ◆ in the Yvelines department: Saint-Germain-en-Laye, CA Saint-Quentin-en-Yvelines, and Poissy.

- ◆ in the Essonne department: CA Eury-Centre-Essonne,

- ◆ in the Val d'Oise department: CA Argenteuil-Bezons, CA du Parisis, CC Vallée de l'Oise et des Impressionnistes, Sannois, and Villiers-Adam.

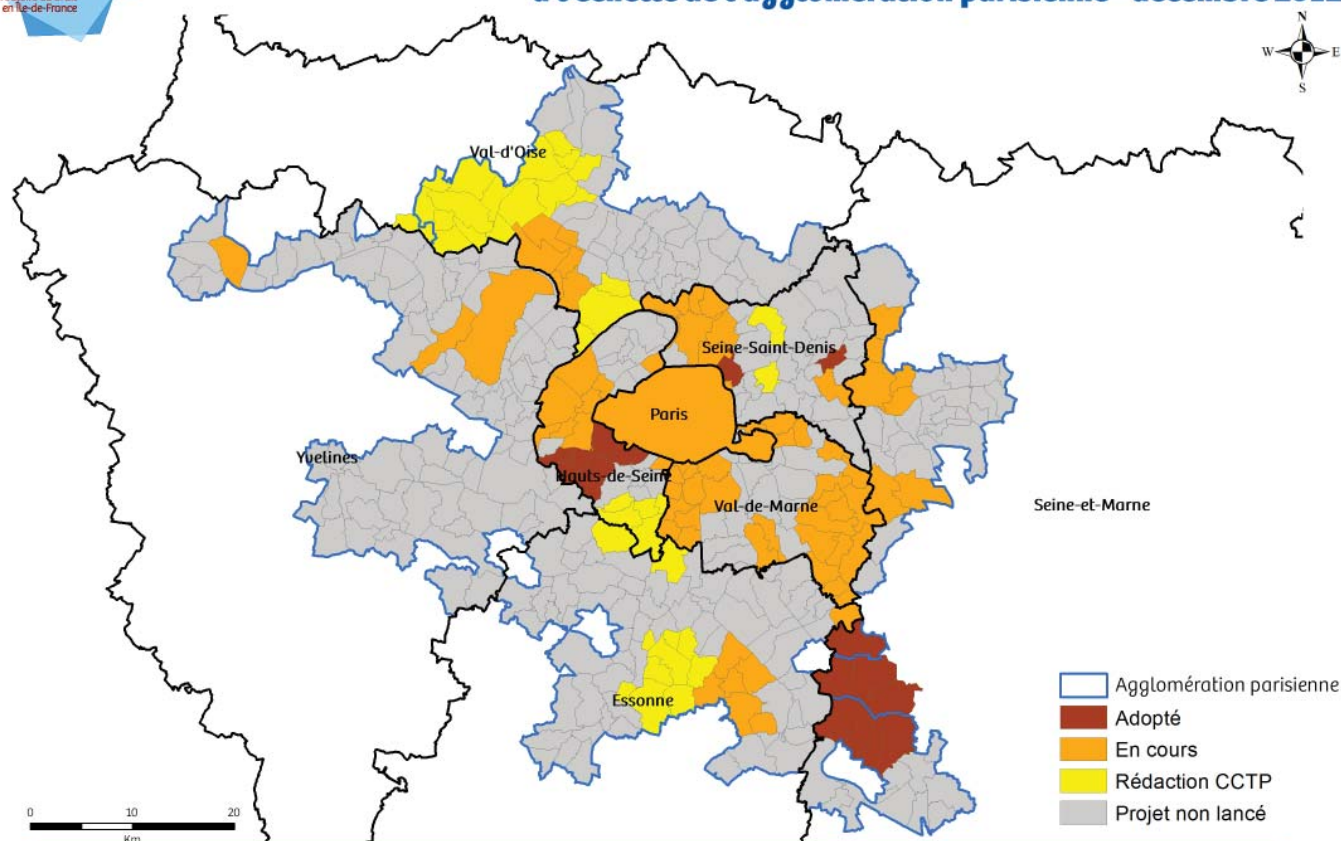
At the end of 2012, local authorities that had started preparing their environmental noise action plan represented 53 % of the population and 34 % of the surface area of the Paris metropolitan area. The map above shows the progress of the local authorities' environmental noise action plans within the Paris metropolitan area.



Training on environmental noise action plans in Bruitparif's offices



Etat d'avancement de la réalisation des PPBE à l'échelle de l'agglomération parisienne - décembre 2012



Sources : Collectivités locales - CG - DDE - DRE - DDEA - SNCF - RFF - DGAC - AdP - IAU-IdF
Réalisé par : Bruitparif, mars 2013

Specific support in the Val-de-Marne department

In 2012, Bruitparif continued its reinforced action plan for the Val-de-Marne department.

The result of this work was several documents analysing and summarising the sound environment in Val-de-Marne, which were provided to the Regional Council during the first quarter of 2012. These documents are:

- ◆ the Val-de-Marne noise atlas,
- ◆ the complete acoustic diagnostic of Val-de-Marne,
- ◆ the report analysing the road noise measurement campaign,
- ◆ the acoustic diagnostics specific to departmental roads.

These documents were prepared based on the work carried out by Bruitparif between 2009 and 2011. This work concerned, among other things:

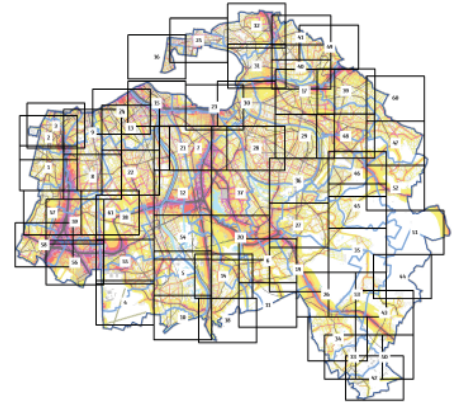
- ◆ the production, in collaboration with the local authorities of Val-de-Marne, of the maps required by the first phase of European directive 2002/EC/49 and their publication on a consultation website specially designed by Bruitparif (www.cartesbruit94.fr), as well as on Bruitparif's and the regional council's websites.

- ◆ the production of an acoustic diagnostic for the entire territory, for each of the 47 councils that make it up. Each council received an atlas made up of 12 maps making it easier to identify the potential quiet areas and those where action could be envisaged, in particular because they highlight sectors that are exposed to noise levels above the threshold values, sometimes for several noise sources (multi-exposure). In these zones, the land use was a particular focus of attention to highlight noise-sensitive buildings (residential, education, or healthcare buildings), as well as future departmental or national urban development projects (urban renewal zones, sensitive urban zones, developments of national interest, etc.). Combined with population data, the «diagnostic acoustique territorialisé» gives regional stakeholders a clearer view of the actions that can be envisaged,

whether they be preventive or curative.

- ◆ A major noise measurement campaign on roads (over 50 sites recorded) in the Val-de-Marne department.

Furthermore, the Val-de-Marne department has been chosen as the pilot area for the regional mapping project. As part of this project, in 2012, Bruitparif started updating the Val-de-Marne noise maps, with a view to using a consistent method for the entire region, which is compatible with the models used by the governmental departments on major infrastructures. Within this framework, important work has been carried out in terms of exploiting and formatting the traffic data for the needs of the mapping project, as well as collecting available information from local authorities. Bruitparif has also carried out work qualifying public buildings in terms of their exposure to noise by combining building information by GIS with the noise levels they are exposed to.



Road noise atlas in the Val-de-Marne department (Lden indicator)



Créteil (Val-de-Marne), estimation of road traffic

And finally, the Bruitparif team held two half-days of training for the Val-de-Marne «health bus» team with a view to raising awareness of the acoustic environment and hearing risk prevention among young people in the Val-de-Marne department.

A European conference

Organisation of an event at European level, on best practice in terms of environmental noise management

In partnership with the regional council of Île-de-France and the City of Paris, Bruitparif organised a European event over two days, on 29 and 30 November 2012, to allow European towns to share best practice on environmental noise management.

On 29 November, the event was held in the chamber of the regional council and the theme was: «Prevention and management of noise in the city: Overview of good practices in European cities» Discussions focused on the following themes: a review of the application of the European directive and outlook, presentation of noise prevention policies in major European towns, round tables on best practice and identifying and managing quiet areas.

The next morning, on 30 November 2012, was dedicated to a presentation of traffic management and road adaptation initiatives carried out by the City of Paris, with a particular focus on the issue of the noise along the ring road, followed by a visit to the site.

The documents and minutes from these two days of meetings, discussions, and debates can be downloaded on the Bruitparif website: <http://www.bruitparif.fr/node/851>

This conference brought together around 130 participants.



Conference of 29 November 2012 Mrs H el ene Gassin, Vice-President of the Regional Council of  le-de-France.



30 November 2012 Presentation of traffic management and road adaptation initiatives carried out by the City of Paris



Visit to the Porte de Vincennes site

European project HARMONICA

The purpose of the three-year project (October 2011 to October 2014) Life+ HARMONICA (HARMONised Noise Information for Citizens and Authorities) is to encourage the general public and the authorities to take ownership of the sound environment issue in order to increase the effectiveness of environmental noise reduction policies at national and European levels:

- ◆ by facilitating access to information on the sound environment and possible solutions
- ◆ by making this information understandable
- ◆ by harmonising the methods and means of comparing different regions and assessing actions aimed at reducing noise.

In particular, this will involve the creation of a noise index for the general public that is innovative and easy to understand. The index results obtained from measurement stations in European cities will be shared via a website to improve access to the information and help the general public and authorities understand it.

The project brings together the expertise of Bruitparif and Acoucité, a sound environment observatory in the Greater Lyons region. Bruitparif is project leader. At European level, the project will also receive support from Eurocities' Working Group on Noise (WGN).

The Bruitparif team was heavily involved in the Harmonica project in 2012. The main accomplishments can be broken down into four categories: the implementation of communication tools and the first project dissemination operations; the completion and analysis of actions during the preparatory phase; the launch of acoustic measurement campaigns to evaluate the solutions implemented to fight noise pollution, and the launch of the project's flagship initiative, which involves preparing and assessing proposals for a noise index aimed at the general public.

Communication and project dissemination tools

The website www.harmonica-project.eu was launched in March 2012. It is available in English and in French. The content is updated regularly to provide the public

with information on the project's progress and main results. Large vertical banners were also created to present the project.

The first project workshop was organised on 3 July to introduce the initial results obtained during the preparatory phase and the methodology for developing and testing indices. Twenty-five participants attended the meeting, including representatives from the government agencies CETE and CERTU, the cities of Paris, Lyons, the Lille metropolitan area, the Communauté d'Agglomération Grand Paris Seine Ouest (Greater Paris West Seine Urban Community), residents' associations, the IBGE (Brussels) and Aéroport de Paris (Paris Airport). A press conference was organised for this occasion, which generated significant media coverage (over 50 articles).

On 28 November, Bruitparif hosted the Eurocities WGN meeting in its offices. Twenty representatives of European cities (Milan, Florence, Rotterdam, Antwerp, Bilbao, Barcelona, etc.) attended the presentation on the project's initial results.

Actions during the preparatory phase

As part of the preparatory actions, a survey was conducted among some fifteen noise monitoring networks around Europe: the IBGE in Belgium, DCMR Rotterdam, Schiphol Airport, OSS, Sensornet and Munisense in the Netherlands, Madrid in Spain, Gdansk in Poland, Dublin in Ireland, metropolitan Lille, the environmental agency



of Tuscany, the Greater Lyons region and Acoucity, Bruitparif and Aéroport de Paris. Fact sheets on each network were prepared. They are destined for publication on the noiseineu.eu website. This work provided greater insight into the details of the technical functioning of other measurement networks and monitoring objectives and made it possible to establish contact with the various networks. All existing networks, with the exception of the one in Dublin, are capable of producing data at one-second time intervals: LAeq(1s). The analysis of existing networks also made it possible to focus on an important challenge related to the diversity of station positions in the field. A proposal to classify stations according to a simple typology was submitted in order to allow results from different stations to be presented in the same display interface. This proposal will be implemented by the two project coordinators during the project demonstration phase along with the joint publication of measurement results from the stations that make up the networks in the Île-de-France and Greater Lyons regions.

In addition to the technical questionnaire, a simplified questionnaire was prepared



with the assistance of the Eurocities WGN working group. This questionnaire was designed for officials from European towns that are part of the Eurocities network, which brings together more than 140 cities in 30 different European countries. The questionnaire focused on the relevance and shared use of a new noise index. The results from the relatively small number of responses obtained (15 cities) were very encouraging. The following cities replied to the questionnaire: Riga, Antwerp, Chemnitz, Helsinki, Zagreb, Malmö, Nice, Utrecht, Dublin, Zurich, Frankfurt, Espoo, Greater London Authority, Vienna, and Stockholm. Eleven of these cities stated that they are willing to participate in the network of communication on noise measurement networks and are interested in implementing the index. However, the idea of the shared platform did not receive the immediate support of all respondents, although there was no significant opposition to it.

The project demonstration phase in the Île-de-France and Greater Lyons regions will make it possible to assess the relevance of their contributions to this new information tool.

At the same time as this work on existing noise measurement networks, a survey of the general public (residents of the Île-de-France and Greater Lyons regions) was conducted to gather information on the level of knowledge on environmental noise. This initial campaign will be supplemented by a second campaign in 2014 once the tools developed during the project have been made public. The survey was carried out by telephone among a total of 800 people (half in Île-de-France and half in Greater Lyons). There were no significant differences between the two urban areas surveyed. Road noise stands out as the main noise nuisance for approximately one third of residents. Aircraft noise is heard twice as often in the Paris region as in Greater Lyons. The respondents' knowledge of acoustics and noise regulations is very limited. Information on noise exposure based on an index that takes into account noise peaks that exceed background noise would complement rather well the indices based on average energy values. A quarter of the population would like information on noise to be distributed by specialised associations or by local authorities. Three quarters of respondents are not opposed to actions aimed at implementing traffic restrictions and changing people's chosen mode of transport.

Measurement campaigns (before/after noise reduction actions)

Acoustic measurement campaigns were also launched in 2012. These campaigns aim to monitor the impact of the actions carried out by local and public authorities to reduce noise. These actions will be promoted through a multimedia database available to the general public from the end of 2013 on the project support website at www.noiseineu.eu. As part of the project, acoustic measurements will be performed on the following actions:

- ◆ Experiment using a low-noise road surface on a section of the Paris ring-road
- ◆ The resurfacing of a portion of the A6 motorway near the town of Villabé
- ◆ The urban renewal of several traffic routes:
 - Avenue de Clichy in Paris, which is a high-traffic road (speed limit of 30 km/h



Station de mesure
Avenue de Clichy, Paris (75)

and new road works),

- A road in Greater Lyons (urban road renewal)
- The modification of a high-traffic road in Pierrefitte-sur-Seine (formerly the RN1, the equivalent on an «A road» or «trunk road»), which was redesigned to accommodate the arrival of a tramway
- Experiment on a new traffic light system on a former «A» road in Pantin (formerly the RN2)
- The re-design of riverside roads in Paris
- ◆ The raising of landing altitudes following the raising of the ILS intercept point to the west of the Paris - Charles de Gaulle Airport.

Preparation and assessment of new index proposals

The central part of the project began during the second quarter. This work consists of preparing and assessing proposals for indices aimed at the general public.

During the first stage, a PCA (Principal Component Analysis) statistical analysis was conducted on a panel of representative sites that have already been documented (over 30,000 data elements) in order to select the most relevant variables for creating a noise index using the LAeq(1s). The teams took into account these results and submitted four index proposals.

To assess the four index proposals, eight sites with different acoustic environments were selected: two sites in rural or semi-urban areas with low background noise levels and a source of transport noise that is predominant or that features noise peaks; three sites in dense built-up areas with significant existing levels of background noise and a source of transport noise that is predominant or with noise peaks; one site with multi-noise exposure to several sources of transport noise; one site in a calm built-up area (low background noise and no major source of transport noise), and one site in a built-up area with road-work activities and recreational activities. The study sites were chosen from among those that were subject to continuous acoustic measurement in order to obtain acoustic data over an extended period of

time. For each of these eight sites, audio-compliant recordings were made over periods of time representative of various noise exposure contexts to obtain audio samples for the laboratory survey phase. To carry out this mission, Bruitparif was equipped with audio-compliant recording and playback equipment that can be used to record sound by means of a binaural headset while also measuring physical parameters. An audio recording of between 2 and 3.5 minutes was made at each of the eight chosen sites, enabling audio-compliant playback.

Next, two types of surveys (field surveys of residents and surveys under laboratory conditions) were conducted with members of the general public and authorities, to test the suggested indices in a complementary manner.

The field survey consisted of individual interviews with a sample of 30 local residents (in their homes) or users (in public) around each of the eight chosen sites for a total of 240 individuals.

Initially, the person interviewed was asked to evaluate the perceived noise level at home or in the public location and to indicate his or her level of annoyance due to the noise. Next, the fact sheets on each of the four suggested indices were presented in random order to the individual.

The «laboratory» survey was conducted on 120 people divided into three groups of approximately forty people each (experts, representatives of associations or elected officials, transport managers, or managers of local authority departments). During these surveys, each individual was asked to listen to sound recordings selected at random from four sites and to evaluate the noise level and noise annoyance for these sites.

The surveys will be analysed during the first quarter of 2013 and the results will be used to choose one index from among the four proposals. Information tools will also be created in 2013: databases on actions, a platform for sharing the index at European level and the website www.noiseineu.com.

Recherche de volontaires pour répondre à un questionnaire sur l'environnement sonore (10 min à votre domicile)

L'association Bruitparif (Observatoire du bruit en Ile-de-France) sollicite des volontaires dans le cadre du projet de recherche européen Life Harmonica. Ce projet vise à renforcer l'information du public et des collectivités sur le bruit dans l'environnement.

Dans les jours à venir, des agents de Bruitparif en charge de l'enquête (voir les photos ci-dessous) se présenteront à votre domicile pour vous proposer de répondre à un court questionnaire sur l'environnement sonore. Cette enquête respecte toutes les règles de confidentialité et de déontologie.

Si vous le souhaitez, vous pouvez dès à présent prendre rendez-vous pour participer à cette enquête à la date et à l'heure de votre convenance, en téléphonant à Bruitparif au 01 75 00 04 00.

Je vous remercie par avance pour l'accueil que vous pourrez réserver à nos enquêteurs, et je vous prie d'agréer, Madame, Monsieur, l'expression de mes meilleures salutations.

Fanny METLICKI, Directrice Julie NOUVION, Présidente

Sites internet à consulter : www.bruitparif.fr Pour toutes questions, vous pouvez contacter : Bruitparif : 01 75 00 04 00
<http://harmonica-projet.eu> La mairie : 01 43 86 35 00

Les agents de Bruitparif en charge de l'enquête à Villeneuve-Saint-Georges :

Mounira Piotr Fanny Rajibul Marie-Alice Matthieu

Wikipédia: Observatoire du bruit en Ile-de-France - association loi 1901, rue aux Herbes 110 751
 8 Impasse Voltaire - 75003 PARIS - tél : 01 75 00 04 00 - Villeneuve : 01 75 00 04 00 - e-mail : contact@bruitparif.fr - www.bruitparif.fr

Quel bruit fait-il aujourd'hui ?

Une nouvelle station de mesure de bruit et un nouvel indice de bruit pour le grand public et les autorité

« Parmi les pollutions, le bruit reste celui qui risque d'augmenter... »

« Selon une étude, il y a un peu plus d'un milliard de personnes dans le monde. C'est un environnement de plus en plus bruyant... »

« L'association Bruitparif (Observatoire du bruit en Ile-de-France) a initié le 20 juillet 2012 une station de mesure de bruit à l'usage de la rue de Paris... »

« Dans les centres urbains, le bruit est devenu un véritable problème de santé publique... »

« Si vous le souhaitez, vous pouvez dès à présent prendre rendez-vous pour participer à cette enquête à la date et à l'heure de votre convenance... »

Field survey announcements in common newspapers

Projet européen QUADMAP

In 2010, Bruitparif took part in setting up a transnational project on the issue of quiet areas: the QUADMAP project (QUIet Areas Definition and Management in Action Plans). The project responded to the LIFE+2010 programme's request for proposals and was selected by the European Commission. QUADMAP was set up in partnership with the DCMR EPA of the city of Rotterdam in the Netherlands; the Labein foundation; the city of Bilbao, in Spain; as well as Vienrose, the University of Sciences of Florence, in Italy.

2012 was dedicated to the project's preparatory actions and the development of methods for selecting, analysing and managing quiet areas.

Over the first half of 2012, Bruitparif established a review of approaches for identifying quiet areas by local authorities in France. Bruitparif also produced a summary of the main work carried out on the subject by French researchers. In June of 2012, an internal project report named «state of the art on the issue of quiet areas in France» was produced. This report, which will feature in the final report (not yet been made public) lists all the different approaches experimented in Europe.

At the same time, Bruitparif was involved in designing a questionnaire aimed at European local authorities on the issue of quiet areas and possible solutions. The French version of the questionnaire was sent out to the members of the «Forum des acteurs» (forum for bodies involved in noise reduction policies). There were few answers as

issues related to the management or redevelopment of quiet areas are generally not yet dealt with by local authorities. Based on all this information, the project coordinator suggested guiding principles for shared methodologies to implement for the selection and analysis of potential quiet areas. During the final quarter of the year, collective work was initiated to improve this first proposal, including the results of work carried out by partners and to take into account the work carried out on the same subject by the group of experts EPON, created by the European Environmental Agency.



Bruitparif hosted a coordination meeting for the project's partners in its offices on 28 November 2012.

The methodologies recommended at the end of 2012 will be applied in 2013 by the partner towns in order to carry out specific interventions on several pilot sites. During this second phase, Bruitparif will support its partners to evaluate the possibility of using the solutions implemented in Florence, Bilbao, and Rotterdam, in France and elsewhere in Europe.

Quadmap meeting
28 november 2012



In 2012, Bruitparif organised a series of initiatives intended to inform, raise awareness, and prevent the risks taken by young people listening to amplified music. It received specific funding from the Île-de-France regional health department as part of the objectives stated in form 4 of the second version of the PRSE (fighting against hearing loss and acute acoustic trauma caused by listening to amplified music).

National hearing day: 350 high-school students informed

For National Hearing day (JNA) on 8 March 2012, in partnership with the Stade de France, Bruitparif organised an event to raise awareness among high-school students, in particular those training for «noisy» professions (construction, boiler work, the car industry, etc.), those likely to pass on the information to others (health-care and social services in particular), and colleges wanting to set up a school project, preferably in underprivileged areas.

350 students from 12 vocational colleges around the region took part in a programme to raise awareness on the noise environment and hearing risk prevention at Stade de France.

Ten educational workshops were organised for students during this day, on the following themes:

- ◆ understanding how the ear works,
- ◆ sound physics experiments,
- ◆ discovering the sound environment, protecting yourself from noise,
- ◆ lowering the volume on your personal stereo,
- ◆ adopting public-spirited behaviour.

And finally, the students took part in a workshop on hearing risk prevention, with

a simple questionnaire for evaluating people at risk.

These educational workshops were interspersed with meetings with specialists from over 10 partners involved in the operation: the Île-de-France ARS, JNA, the City of Paris, the Police department, ORL75, France Acouphènes, lesoreilles.com, and the Stade de France consortium.

The day also allowed the students to discover the legendary Stade de France, including visits to the players' changing rooms, the warming-up rooms, and the pitch.

At the same time as the event organised for high-school students, a conference-debate on amplified music was held in the Stade de France auditorium. This conference, entitled «Musique amplifiée : en bonne entente» («Amplified music: in harmony»), was organised by the Stade de France consortium in partnership with Bruitparif and local residents' union of associations. Experts, as well as other stakeholders, had the opportunity to express themselves in order to discuss best practices for noise management that takes the sound environment and the health of those involved into account.



Bruitparif poster for the 2012 JNA



A few high-school students



Self-testing of hearing impairments

Self-testing of hearing impairments

Preventive actions have been organised by Bruitparif during several major open-air music events in Île-de-France, in partnership with their organisers:

- ◆ **Marche des Fiertés** (30 June) organised by Inter-LGBT.
- ◆ **Solidays** (22-24 June) organised by Solidarité-SIDA.
- ◆ **Techno Parade** (15 September) organised by Technopol.

These events bring together a huge number of people from all over Île-de-France (around 1 million people), providing an opportunity to pass on a hearing risk prevention message to a large number of people and reach the target audience, namely young people.

There were three complementary operational objectives for each event:

- ◆ Reducing noise at its source in order to limit the risk of acute acoustic trauma by increasing awareness among the float operators and professionals (sound engineers, DJs, etc.) that work on these events.
- ◆ Raising awareness among the public and professionals of the risk of damaging their hearing they take when listening to amplified music. In order to do this, four noise measurement devices, combined with large displays (100 x 70 cm), were set up on lampposts along the route taken by the Marche des Fiertés (Gay Pride) and the Techno Parade. Specially designed for this type of event, and visible to all, the displays gave the noise levels in decibels in real-time and displayed relevant risk-prevention messages. Green light: acceptable noise level; orange light (85 decibels or more): ear-plugs are strongly advised; red light (above 105 decibels): it is urgent to move away from the speakers. This way, the public could find out the noise levels generated at any time and take appropriate precautions. During the Solidays festival, noise measurements were also carried out by Bruitparif in different parts in the festival, in order to review the overall situation and issue recommendations for the organisers in order to improve the sound management of the event for the following years.

◆ Protecting the public from the risks taken by giving out free ear-plugs and flyers featuring the number of France Acouphènes; a partner working to advise the victims of hearing loss.

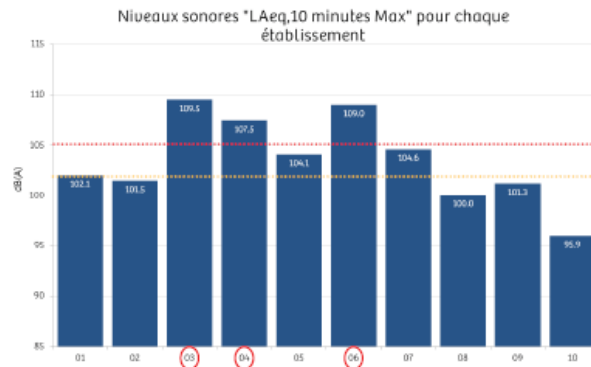
Around 150,000 pairs of ear-plugs were given out at these events:

- ◆ 50,000 pairs of ear plugs were given out for free by LMDE during the Marche de Fiertés.
- ◆ 50,000 pairs of ear-plugs were given out to festival-goers at Solidays by Bruitparif, thanks to the partnership with JNA and Quies.
- ◆ 50,000 pairs of ear-plugs were given out by volunteers at the start and along the route of the Technopol and Fêtez-Clairs events.



Measurement of noise levels in nightclubs

Bruitparif carried out a second measurement campaign in 10 nightclubs in the Île-de-France region, aiming to identify the noise levels with respect to the 105 dB(A) limit set by the regulations. These measurements were carried out during the winter of 2011/2012, in accordance with the protocol established following previous regional studies of nightclubs: random checks by «mystery customers» to get representative recordings of the situation on an average weekend night.



Presentations in teaching establishments or for educators and facilitators

As well as the event organised for high school students as part of National Hearing Day, Bruitparif also made presentations to raise awareness in three schools during 2012:

- ◆ Arche Guédon high school in Torcy (Seine-et-Marne): Presentation made on 31 January 2012 to a class of students in health and social sciences and technologies, in the context of a school project intended to promote the action of institutions on public health. For the central element of this project, the teacher had chosen to look at the issue of «Roissy Charles de Gaulle airport as an economic hub with controlled and managed noise nuisances». It was the opportunity for Bruitparif to explain its involvement in the Survol project, intended in particular to improve locals' knowledge and understanding of the noise generated by aircraft.

- ◆ JB Poquelin high school in Saint-Ger-

main-en-Laye (Yvelines) on 3 February 2012: Presentation for around 100 students as part of national health week.

- ◆ Jacques Decour secondary school in the 9th arrondissement of Paris on 6 June 2012, in partnership with the Police department.

And finally, Bruitparif had the opportunity to organise training days for health or environmental officers of different local authorities:

- ◆ Training course for educators in the agglomeration community of Val de Bièvre (Val-de-Marne) on 16 February 2012.

- ◆ Training course for educators in Vincennes on 16 March 2012.

- ◆ Two half-day training courses for the team of the «health bus» of Val-de-Marne on 4 January and 28 March 2012 in the context of a specific agreement with the departmental council of Val-de-Marne.



Presentation at JB Poquelin high school in St-Germain-en-Laye

Involvement in working groups set up by the ARS

During 2012, Bruitparif took part in various working groups coordinated by the ARS on the issue of the risk of hearing loss caused by listening to amplified music:

- ◆ **The noise action team coordinated by the ARS**

- ◆ **A working group taking noise measurements in cinemas.** In the context of a course held at the ARS's territorial office in Yvelines by an EHESP student on the issue of sound levels in cinemas.



Work continues on setting up the regional observatory for electromagnetic waves

In 2012, Bruitparif continued to work on setting up a regional observatory for electromagnetic waves. The objectives of this observatory are a result of the observations made during the feasibility study in 2011:

- ◆ The absence of tools for characterising the overall exposure level, taking into account all sources of emissions.
- ◆ The lack of a strategy for monitoring exposure, with measurements in the field essentially taking place occasionally, on-demand and with no prioritisation of the sectors most in need.
- ◆ The needs expressed by councils for support on these issues at local and regional levels, both in terms of a source of information and assistance with methodology and equipment for a better understanding of exposure levels in the territory.
- ◆ The existence of approaches that combine on-site measurements and modelling to characterise the level of electromagnetic fields in a given area: experiments by the COMOP, or the application of regulations implemented by the Brussels-Capital region, for example.

A meeting bringing together the different players contacted to take part in this regional observatory for electromagnetic waves was organised by Bruitparif on 5 July 2012 at the regional council. This meeting allowed certain ideas and discussions on the project and led to the creation of a working group bringing together volunteers to go deeper into the technical and administrative aspects.

Three meetings were organised during the final quarter of 2012. They allowed discussions on the project's objectives and the establishment of a programme and a provisional budget for the 2013-2016 period.

As a result of these discussions, two ambitions and four operational areas of work were decided on for the Ondesparif observatory:

- ◆ **Ambition 1:** Establish a strategy for monitoring levels of exposure to electromagnetic waves in the Paris region, based on three areas of work:

Area 1: Exhaustive collection of existing data on transmitters and the measurements carried out in the field.

Area 2: Creation of a 3D land register of electromagnetic waves at regional level.

Area 3: Deployment of measurement equipment combining a fleet of fixed, semi-mobile, and portable devices making it possible to monitor sensitive points that may be highlighted by modelling and/or existing measurement data, making it possible to precisely quantify levels of exposure to electromagnetic waves and record their variation over time.

- ◆ **Ambition 2 and Area 4:** Provide local authorities with a tool to support them with and inform them on technological, scientific, regulatory, and legal aspects.

At the same time, studies have begun on the issue of how to manage this observatory. A draft of new statutes for Bruitparif has been prepared to allow Ondesparif to work with Bruitparif, while maintaining the specific internal methods of both organisations.

The work will be continued in 2013 with the presentation of a roadmap and new statutes to Bruitparif's members with a view to obtaining their approval as well as finding the additional funding necessary; two essential conditions for making this observatory project feasible and viable in the long-term.



Mobile telephone antenna



High-voltage power line

Third party events

In 2012, Bruitparif took part in various third party events:

Semaine du Son

For the last ten years, a campaign to raise awareness among the public on environmental noise entitled «La semaine du son» has been organised in Paris and the rest of France. Bruitparif made a presentation on 17 January 2012 in a session that focused on the decibel and sound measurement.

Salon de la Nouvelle Ville

Between 3 and 5 April 2012 at the Salon de la Nouvelle Ville organised by the Association of Councils of Île-de-France. The association was present on the Regional Council's stand, with other regional bodies, to take part in meetings and discussions for the show's visitors on the themes of regional noise mapping, the Rumeur network, and the resources needed to prepare an environmental noise action plan.

Public meetings:

Bruitparif took part in two public meetings: The first one, organised on 2 May 2012 by the town hall of the 13th arrondissement on the subject of noise nuisances in the Butte aux Cailles district.

The second one, on 24 May at the town hall of the 20th arrondissement, concerned the environmental issues related to the Paris ring road.

Internoise

Bruitparif was involved in Internoise, the biggest international convention on noise, bringing together researchers, political decision-makers, and experts. The 2012 edition of this convention was held in New York between 19 and 22 August with the theme «Quieting the World's Cities». Bruit-

parif made three oral presentations:

Presentation of the methodology for identifying quiet areas experimented in Paris.

Presentation of the Rumeur network.

Presentation of the European Life+ Harmonica project.

Respirations d'Enghien

For the fourth consecutive year, Bruitparif was invited to take part in Respirations d'Enghien, a convention dedicated to air quality, which is also open to the issue of noise. This year, the conference was held on 26 October 2012 and Bruitparif presented the issue of the noise nuisances generated by nightlife establishments.

Higher education courses

On 12 December 2012, Bruitparif held a course as part of EHESP's M2 Master's degree in Public Health and Environmental Risks on the theme «noise: exposure and effect on health».

Working groups

As well as its involvement in AFNOR's normalisation work and the work coordinated by the regional health department, in 2012 Bruitparif continued to bring its expertise to the meetings of the «bruits de proximité» (local noises) working group organised by the Conseil National du Bruit (three meetings), and the working group of the Union Routière de France (two meetings).

Bruitparif also organised a meeting with the French-speaking working group of noise observatories on 8 February.

The director of Bruitparif, Fanny Mietlicki, also took part in seven meetings with the group of experts set up by the ANSES on the issues of «noise and health».

Publications

List of institutional publications in 2012

- ◆ Charte d'élaboration de la cartographie régionale du bruit
- 2011 annual report
- ◆ Two editions (no. 14 – July 2012 and no. 15 - November 2012) of the «Francilophone» magazine
- ◆ Publication of a monthly newsletter

List of documents for the preparation of environmental noise action plans published in 2012

- ◆ Template for environmental noise action plans, March 2012
- ◆ «Agir contre le bruit routier/Opter pour des revêtements acoustiques», October 2012.
- ◆ «Agir contre le bruit routier/Faire baisser



Presentation at «La semaine du son» on 17 January 2012



Public meeting in the 13th arrondissement of Paris



La vitesse», October 2012

List of technical studies and summary reports published in 2012

- ◆ «Campagne de mesure du bruit autour de l'aérodrome de Toussus-le-Noble», March 2012.
- ◆ «Atlas bruit du Val-de-Marne», March 2012.
- ◆ «Diagnostic acoustique de la voirie et du patrimoine départementaux», March 2012.
- ◆ «Rapport de mesure du bruit le long des infrastructures routières du Val de Marne», March 2012.
- ◆ «Bilan de la gestion sonore de la Marche des Fiertés», September 2012.
- ◆ «Synthèse des éléments de connaissances actuelles sur le bruit généré par le boulevard périphérique», September 2012.
- ◆ «Bd Périphérique Pte de Vincennes : bilan à 3 mois de l'effet acoustique de la mise en œuvre de nouveaux revêtements de chaussée», October 2012.
- ◆ «Résultats des mesures acoustiques réalisées de nuit de manière inopinée dans 10 discothèques franciliennes en 2012», October 2012.
- ◆ «Bilan d'un an de mesure à Saint-Brice-

sous-Forêt (95)», October 2012.

- ◆ «Résultats des mesures de bruit réalisées lors de Solidays 2012», November 2012.
- ◆ «Résultats des mesures de bruit réalisées lors de Technoparade 2012», November 2012.
- ◆ «Bilan de l'expérimentation de mesure du bruit rue Jean-Pierre Timbaud Paris XI», December 2012.

List of the year's scientific publications

- ◆ «An innovative approach for long-term environmental noise measurement: RUMEUR network», Mietlicki C., Mietlicki F., Sineau M., Congrès Inter Noise 2012, New York, USA, August 2012.
- ◆ «HARMONICA project (HARMONised Noise Information for Citizens and Authorities)», Mietlicki F., Gaudibert P., Vincent B., 2012 Inter-Noise conference, New York, USA, August 2012.
- ◆ «Implemented comprehensive approach for the identification of quiet areas in the city of Paris», Duguet P., Mietlicki F., Da Silva R., Ribeiro C., Gaucher E., Congrès 2012 Inter-Noise conference, New York, USA, August 2012.

Media coverage

Press conferences

On 3 July 2012, Bruitparif organised a press conference for the operational launch of the Harmonica project. Bruitparif also took part in a press conference organised by the town hall of the 11th arrondissement of Paris.

Bruitparif also published several press releases for:

- ◆ The election of Julie Nouvion as chairperson of Bruitparif (PR of 31/01/12).
- ◆ The publication of the results of the study carried out by Bruitparif around Toussus-le-Noble (PR of 13/03/12).
- ◆ Installation of a combined air/noise measurement device in Melun (PR of 12/09/12).
- ◆ The publication of a review of existing knowledge on the noise generated by the Paris ring road (PR of 27/09/12).
- ◆ Information for parents about noisy toys at Christmas time (PR of 03/12/12).

173 press articles explicitly citing Bruitparif and 11 radio and TV interviews counted in 2012:

- ◆ The Harmonica project (index, surveys): 48 articles.

- ◆ The studies on the Paris ring road (summary of current knowledge, relationship between noise and speed, and experiment with new road surfaces): 33 articles and 2 programmes (France Bleu, France 3 IdF).
- ◆ General information on Bruitparif, its action plan, related regional bodies and the Cité régionale de l'environnement: 23 articles.
- ◆ The Ondesparif project: 13 articles and 2 programmes (France Bleu, France 3 IdF).
- ◆ The experiment on rue Jean-Pierre Timbaud: 12 articles and 2 programmes (France Bleu, France 3 IdF).
- ◆ General information on noise with a mention of Bruitparif's work: 10 articles and 3 programmes (France culture, France Info, Envoyé Spécial France2).
- ◆ Awareness-raising actions (JNA, noisy toys): 12 articles and 2 programmes (RFI, France Bleu).
- ◆ Noise measurement (measurement devices, measurement campaign results): 12 articles.
- ◆ Noise mapping: 6 articles.
- ◆ The European conference: 4 articles..



Press conference organised by the town hall of the 10th arrondissement in Paris.



Recording of a radio programme (France-info)

The average number of employees for 2012 was 15.1 full-time equivalent staff, compared to 15.6 in 2011.

Several departures and new arrivals occurred during the year:

- ◆ Departure of Alexis Teulé (studies engineer on an indefinite-term contract) on 31 March 2012.
- ◆ Departure of Cathy Lazare (communication manager on an indefinite-term contract) on 13 October 2012.
- ◆ Departure of Marie-Alice Dorléans (GIS/mapping manager on an indefinite-term contract) on 31 October 2012.
- ◆ Recruitment of Antoine Perez-Munoz (responsible for the «Ondesparif» mission) on a fixed-term contract on 3 September 2012.
- ◆ Recruitment of François Soulabaille (communication manager) on an indefinite-term contract on 3 September 2012.
- ◆ Recruitment of Mathilde Comment (local

authorities support manager) on a fixed-term contract on 1 October 2012.

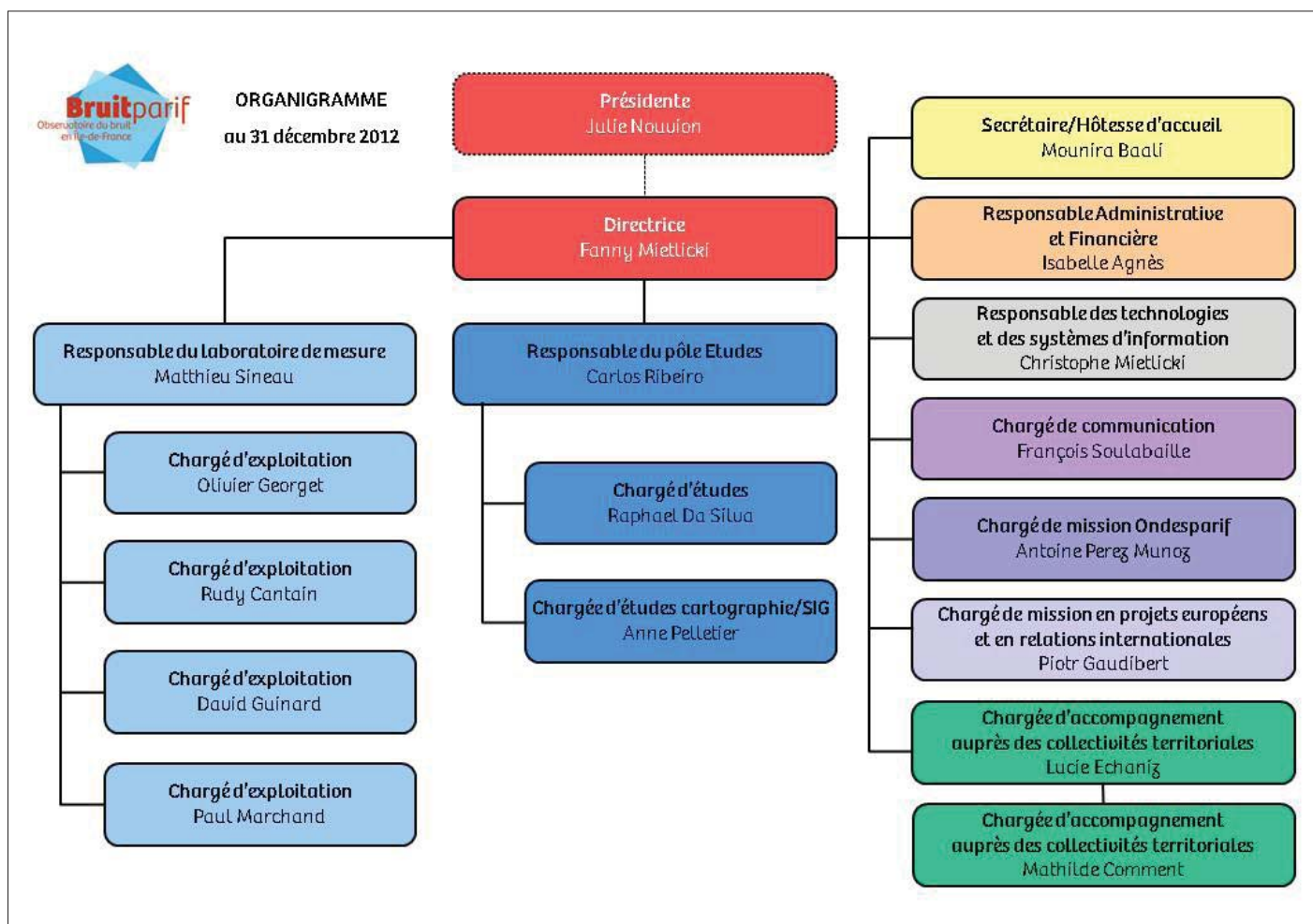
- ◆ Recruitment of Anne Pelletier (GIS manager) on a fixed-term contract on 22 October 2012.
- ◆ Recruitment of Paul Marchand (technician) on a fixed-term contract on 3 December 2012.

The Bruitparif association has 17 employees as at 31 December 2012. The team is broken down into 13 people on indefinite-term contracts and 4 people on fixed-term contracts.

All work full-time. The team is broken down into 11 men and 6 women with an average age of 36.75 years.



Bruitparif team
18 January 2012



Financial data

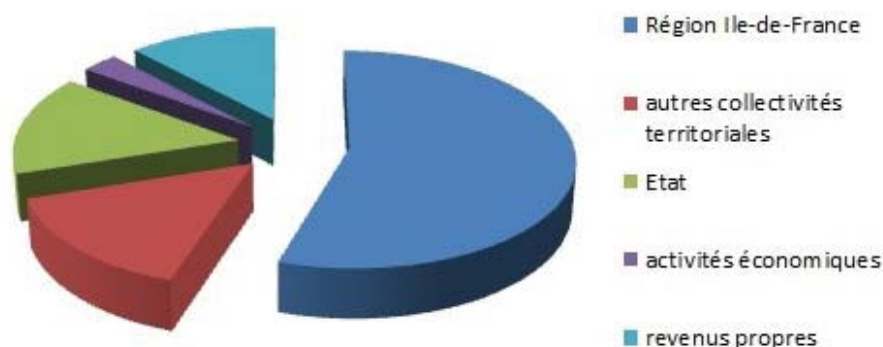
For its seventh full year of activity, Bruitparif's revenue was up slightly, at €1,977,709 compared to €1,955,808 in 2011. The income statement, meanwhile, shows a surplus of €78,507.

Operating income

Operating income (excluding adjustments for amortization) amounted to €1,818,990, which is up 10.7 % compared to 2011. It was very close to the budgeted figure (-0.6 %).

This income is broken down as follows:

- ◆ 55 % from the Île-de-France regional authorities.
- ◆ 15 % from «other local authorities».
- ◆ 15 % from central government.
- ◆ 3 % from «the economic sector».
- ◆ 12 % from revenue generated by Bruitparif's activity, which is essentially European subsidies obtained for the Harmonica and Quadmap projects.



Operating expenses

Operating expenses (excluding amortization offset by the share of subsidies transferred to the income statement) amount to €1,740,484.

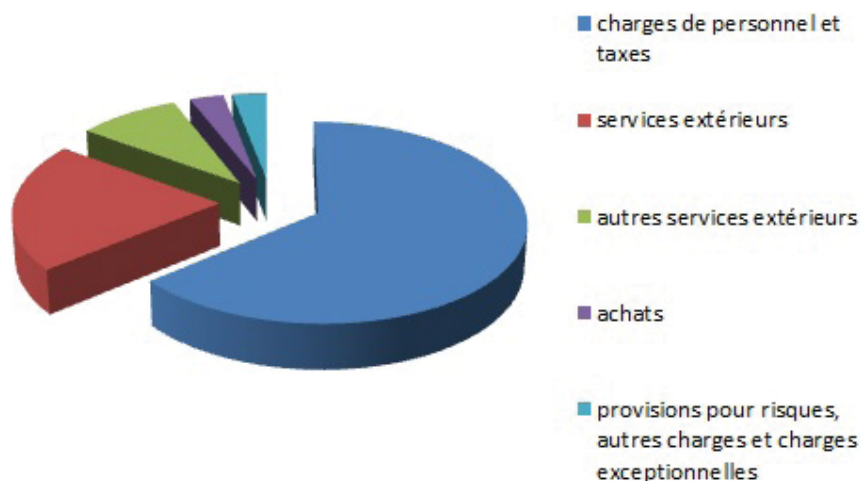
They are up slightly compared to 2011 (+3 %).

The breakdown of the different items is as follows:

- ◆ 64 % for items related to «employee expenses», namely wages, social security contributions, and related «taxes and duties».
- ◆ 21 % for «third party services», which concern sub-contracting, rental, maintenance, insurance, studies, and research.
- ◆ 9 % for «other third party services», which concern communication and public relations, travel expenses, missions and receptions, postal charges, and telecommunications.
- ◆ 3 % for «purchasing», which essentially concerns spending on minor equipment

required to operate acoustic measurement devices and office and IT supplies.

- ◆ 3 % for «risk provisions», «other expenses», and «extraordinary expenses».



Bruitparif prepares a strategic plan

Continuing noise monitoring: a necessity

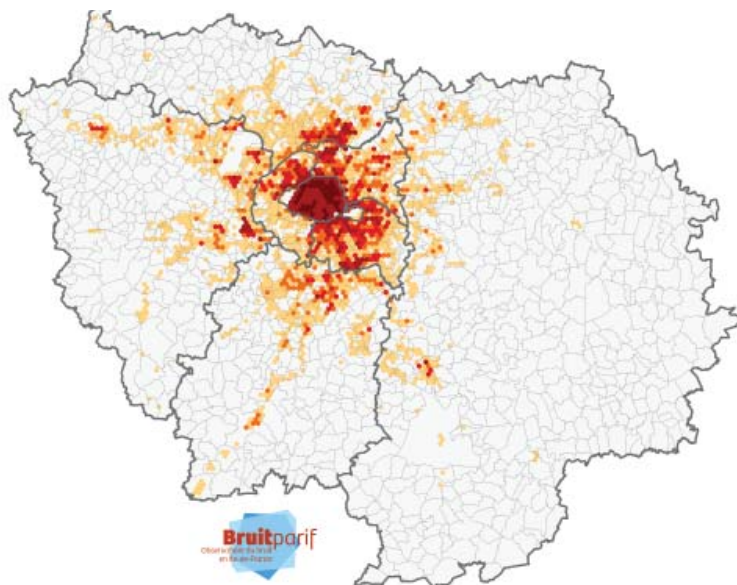
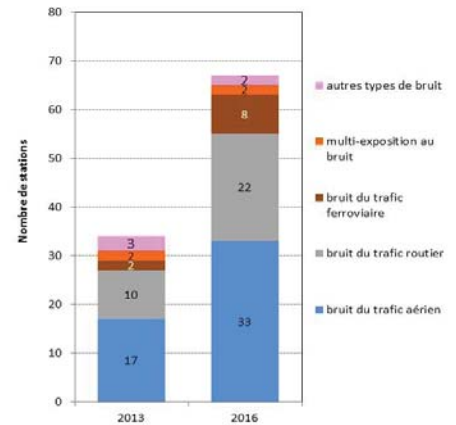
The tools developed by Bruitparif have already proved their worth and usefulness in the face of the major challenges that noise represents in the Île-de-France region. It is important to remember that 71 % of people in the region claim to be affected to varying degrees by noise, with one in four people saying they are often or constantly disturbed. Noise-related disturbances increase in direct proportion to the level of urbanisation. The main sources of disturbance in Île-de-France are road traffic (49 %) and neighbours (39 %), followed by air traffic (19 %), and finally, motorised two-wheeled vehicles (16 %), rail traffic (6 %), and construction (6 %). This high level of disturbance can be explained in large part by the high population density and the exceptional density of transport infrastructures in Île-de-France. The first work consolidating the noise maps produced in application of European directive 2002/49/EC also showed that around 2 million inhabitants (20 % of the population of the Paris metropolitan area) are potentially subjected to noise levels that exceed the regulatory thresholds on the façade of their homes. Moreover, the health impact of noise is now recognised and increasingly studied. The WHO recently highlighted the fact that transport noise represents the second big-

gest environmental factor for ill-health in Europe, behind atmospheric pollution. Faced with such an important issue, it seems vital to develop our understanding of the exposure of populations to noise in order to better inform them and allow decision-makers to prioritise action and preserve quiet areas.

Now recognised at regional, national, and European level thanks to its involvement in working groups and European programmes, Bruitparif has nevertheless not yet secured its operations, due to the need to continue developing monitoring and information tools on noise in Île-de-France and because too much of the organisation's work (around 23 %) is currently financed by short-term funding obtained as part of specific studies and European projects.

This observation led Bruitparif's administrators, in particular the government, to ask Bruitparif, at the end of 2011, to prepare a strategic document providing a vision of the association's future until 2016, in order to be able to discuss the challenges that it faces, to prioritise the actions that the observatory needs to carry out, and to ensure long-term funding for the highest-priority public-interest missions.

Prévision de croissance du réseau de mesure entre 2013 et 2016



The strategic challenges for Bruitparif

This work has allowed Bruitparif to identify several strategic challenges for the years to come:

- ◆ The first one concerns the reinforcement of its method of governance, in order to ensure, first of all, that the work carried out by the observatory is shared more effectively and recognised by its members, as well as aiming for better balance in its funding to guarantee the future of Bruitparif's public-interest missions.
- ◆ The second challenge concerns the opportunity for Bruitparif to join the Cité régionale de l'environnement, which will be created in Pantin at the end of 2014 and which would improve the observatory's

visibility while developing synergies with other regional organisations working on environmental issues.

- ◆ The third challenge aims to position Bruitparif as a prescriber with respect to changes that could be envisaged at regulatory or legislative level. The involvement of Bruitparif in the Conseil National du bruit should facilitate this work.
- ◆ The final challenge is to continue developing the recognition and credibility of Bruitparif's expertise at national and international level, through Bruitparif's continued active involvement in working groups in France, in European programmes, and through the presentation of its work at international conferences.

The 10 priority initiatives

In terms of its action plan for the years to come, 10 initiatives have been chosen as the priorities in terms of public-interest missions for the 2013-2016 period.

In terms of monitoring:

- ◆ The production and regular updating of regional noise maps.
- ◆ The evolution and exploitation of the measurement network, with the objective of doing more measurements of the noise generated by road and rail traffic and having better coverage of the region. The size of the network should be doubled within four years in terms of the number of measurement devices (increased from 34 sonometers currently to 67 in 2016).
- ◆ Continuation of measurement campaigns with the objective of more short-term monitoring periods along road infrastructures, in order to confirm the accuracy of noise maps.
- ◆ Greater exploitation of data in order to allow the publication of analyses and

summaries, in particular an annual report pertaining to the noise data in Île-de-France.

- ◆ Bruitparif's continued involvement in multidisciplinary work, in order to improve understanding of the phenomena and the evaluation of the effects of noise.

In terms of support:

- ◆ Continued support for those responsible for the application of European directive 2002/49/EC.
- ◆ Bruitparif's involvement in work groups with a view to the increased consideration of noise in regional public policies.

In terms of information:

- ◆ Increased communication depending on the different publics, in particular local authorities and associations.
- ◆ The development of Bruitparif's renown and visibility abroad.
- ◆ Maintain awareness-raising activities, which are essential for making things move forward.

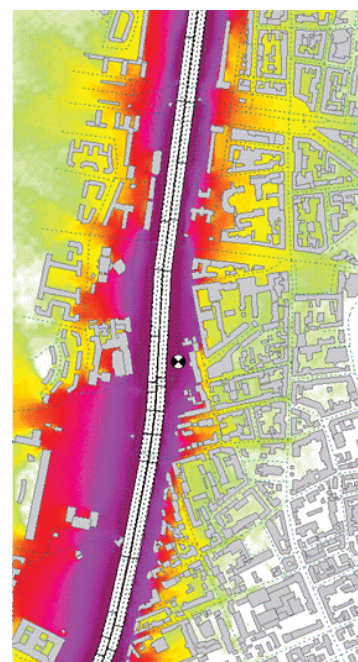
The search for funding

In order to realise this work, it is important to keep Bruitparif's current team together, made up of 14 permanent full-time equivalent employees on indefinite-term contracts, and to progressively refocus its activity on the missions listed in the public-interest action plan.

The main challenge will be to find additional long-term funding to compensate for the reduced income from specific studies that should occur in 2014 and 2015 following the end of the European projects and research projects that Bruitparif were involved in.



The future regional environmental centre in Pantin



Noise modelling map



Laboratory vehicle

Joining Bruitparif means:

- ◆ Joining a network of players in the Paris region working to fight noise pollution, thereby proving your interest in preserving the sound environment by being involved in choosing the association's direction and defining its work and projects (voting rights during AGMs);
- ◆ Getting daily updates on the association's latest news and receiving the various documents published by the observatory: the «Francilophone» magazine, newsletters, invitations to professional seminars or training sessions organised by Bruitparif, annual reports, annual statistical reports on noise in Île-de-France, as well as reports on the different studies carried out by the observatory;
- ◆ Helping to implement concrete actions to promote greater consideration of the sound environment by supporting the development of the noise measurement observatory at regional level (the permanent measurement network «Rumeur», measurement campaigns, etc.), regional noise mapping by the different local players, the provision of tools to implement effective noise prevention policies in your area or field of intervention (methodological guides, access to Bruitparif's Web-GIS platform providing access to regional noise mapping data), and the publication of reliable, objective and independent data on noise;
- ◆ Getting involved in awareness-raising campaigns with the general public to allow everyone to discover the importance of the sound environment and help to preserve it through access to tools or awareness-raising resources produced by Bruitparif (noise exposure, a «personal stereo test» workshop, a guide for producing presentations on noise aimed at school children or the general public, and a DVD entitled «Environnement sonore : perception et risques», among other things.

Table of 2013 membership fees (approved by the board of administrators on 23 April 2013)

Collège	Membres	Montant de cotisation (en euros)
3ème collège : Autres collectivités territoriales	Départements	20 000
	Collectivités locales (communes ou EPCIs) :	
	Moins de 10 000 habitants	200
	10 000 - 20 000 habitants	400
	20 000 - 30 000 habitants	600
	30 000 - 40 000 habitants	800
	40 000 - 50 000 habitants	1 000
	50 000 - 60 000 habitants	1 200
	60 000 - 70 000 habitants	1 400
	70 000 - 80 000 habitants	1 600
	80 000 - 90 000 habitants	1 800
	90 000 - 100 000 habitants	2 000
	100 000 - 120 000 habitants	2 200
	120 000 - 140 000 habitants	2 400
	140 000 - 160 000 habitants	2 600
	160 000 - 180 000 habitants	2 800
180 000 - 200 000 habitants	3 000	
200 000 - 240 000 habitants	3 200	
240 000 - 280 000 habitants	3 400	
280 000 - 320 000 habitants	3 600	
320 000 - 360 000 habitants	3 800	
Plus de 360 000 habitants	4 000	
4ème collège : Activités économiques	Grands opérateurs ou acteurs dans le domaine des transports, de l'habitat, de la construction, industriels agissant au niveau national ou régional	10 000
	Industriels ou acteurs économiques ayant un impact plus local en terme de bruit	5 000
	Chambres de commerce, associations ou fédérations professionnelles	2 500 € si budget de l'organisme < 5 M€ 5 000 € si budget de l'organisme ≥ 5 M€
	Organismes publics	2 500
5ème collège : Professionnels de l'acoustique, de l'audition et des impacts du bruit	Organismes professionnels traitant de l'acoustique ou de l'audition, organismes d'informations, d'études et de recherche cherchant à caractériser le bruit et ses impacts	100
6ème collège : Associations agréées de protection de l'environnement et de consommateurs et personnalités qualifiées	Associations	20
	Personnalités qualifiées	0

Activity report 2012

Document designed and produced by Bruitparif - May 2013
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