

The Francilophone

Newsletter of Bruitparif, the noise
observatory in Ile-de-France

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September 2011

Editorial

Now that we are all back to work, the Francilophone opens with a practical report on "How to draw up your action plan." Main financial aids, regulatory obligations, different steps... The authorities in charge will find the keys necessary to start the process.

What's new at Bruitparif is the opening to the general public of the Internet access to the data collected by the different measurement stations deployed on the Ile-de-France territory. Transparency, intuitive browsing, interactivity and pedagogy are the keywords of this new tool that will inform every Ile-de-France inhabitant on their sound environment.

In order to increase knowledge, the deployment of the Rumeur measurement network is accelerating. Already 9 Sonopodes™ have been installed within the health-environment study Suruol around the Paris Charles-de-Gaulle and the Paris-Orly airports. Other stations will be installed by the teams by the end of the year, which will bring the Rumeur network to about forty units.

In this new issue, you will also find a focus on the actions in Val-de-Marne, the results of a perception survey organised in partnership with the CNAM towards a hearing-impaired population, the main conclusions of the new parliamentary report on noise nuisances...

I wish you an excellent return to work and a good reading.

Fanny Mietlicki

Director of Bruitparif



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How to draw up
your **action plan**

Bruitparif
Observatoire du bruit
en Île-de-France

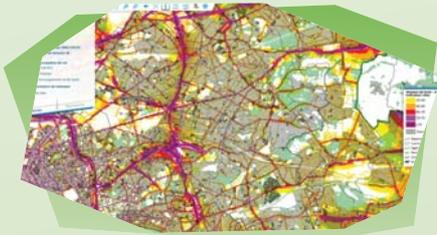
How to draw up

your action plan

Now that the strategic noise maps have been published, the 250 or so authorities in charge for the Paris agglomeration have to make an action plan. Who is concerned and what are the deadlines? Are there any financial aids? What are the different steps? Here are the main guidelines to take action.

The 2002/49/EC European directive and its transposition into French law require the towns and intercommunalities within agglomerations of more than 250,000 inhabitants to make action plans. The deadline, set on July 18th, 2008 by the European commission, is already long past and to this day, for the Paris agglomeration, only the towns of Pantin and Clichy-sous-Bois and the Sénart Agglomeration syndicate have published their action plans. Some local authorities are working on it very seriously: the City of Paris, the Grand Paris Seine Ouest, the Eury Centre Essonne and the Marne et Chantier Agglomeration communities, the town of Vitry-sur-Seine... But it is urgent for the authorities in charge that have not started the work to launch the process now.

The objective of the action plan: improve the living environment and health of the inhabitants on a daily basis through the prevention and the reduction, if need be, of environmental noise and favour the access for everybody to an identified and preserved "quiet area." The nuisances that must be considered are the ones generated by the road, rail and air transportation infrastructures as well as some industries. However, nothing keeps the local authorities that would like it to extend their action plans to other noise sources, such as commercial or leisure activities for instance.



For the first time, regulations have been written to fight against noise in an overall way by ensuring consistency between the different policies (urban planning, transportation and mobility, environment, health...) in a sustainable development perspective.

Before taking action: review of the financial aids

To support the drawing up of the action plans, the Ile-de-France Regional council offers subsidies to the local authorities that apply for them. Thus, 40% of the amount of the preliminary studies (diagnosis complementary to the noise maps), for a maximum of 10,000 euros, and 20% of the amount of the work to draw up the action plan, limited to 4,000 euros, can be paid for by the Region. In addition, a 240,000 euro budget will fund 4 innovative pilot operations.

Be careful, in order to receive these aids, it is necessary to send an application to the Environment Direction of the Regional council before the contractor starts to work (see focus opposite).

Moreover, the ADEME contributes to the reduction of land transportation noise hotspots. Subsidies can be granted to local authorities to make noise screens, insulate facades or replace road surfaces. To know more, go to www.ademe.fr, section Noise or contact Aude Fortain (Phone: +33 (0)1 49 01 45 60 – email: aude.fortain@ademe.fr).

STEP 1:

Let the maps do the talking

If the strategic noise maps are a first diagnosis of the sound environment, it is wise to go further in the analysis to determine and prioritise the stakes on the territory. To do so, Bruitparif recommends making a territorial acoustic diagnosis by crossing other available information sources: location and density of the population, land use plan, urban local plan, urban development projects, exploitation of the complaint register...

The analysis of these data will be the basis to answer the following questions:

- What are the predominant noise sources and what are their impacts in terms of population exposure (location, number of local residents exposed, presence of sensitive buildings...)?
- What are the areas where the limit values are exceeded? What surface area is impacted? How many people are affected?
- What infrastructures are responsible for the highest noise levels?
- Where are the sensitive buildings and areas (housing, schools, hospitals, parks and gardens)?
- Are there areas multi-exposed to several noise sources? How many people are living there?
- What are the areas least exposed to noise that could potentially be defined as "quiet areas"?
- Etc.



At this stage, it is a good idea to take stock of the existing regulatory orientation documents (Territorial Consistency Scheme, Local Urban Plan...) as well as all the information related to the noise reduction or prevention actions implemented for the last 10 years and planned for the next 5 years by all the authorities in charge on the territory, including the transportation infrastructure managers.

Once these elements have been gathered, it can also be necessary to carry out complementary studies on site to get more specific information.

This first step is particularly important as it constitutes a common ground for the different entities involved in the project.

STEP 2: start drawing up the action plan

If every local authority has its own organisation, the ones that have begun the process within the Paris agglomeration have in common the appointment of a project manager and the setting up of a technical or a steering committee consisting of the different services of the authority (environment, urban planning, road management...) and the external partners concerned (infrastructure managers, user associations, experts...). Most of them have created thematic working subgroups to tackle the various aspects of the action plan by major noise source, or in order to deal with particular aspects such as delivery management, horns, noisy two-wheelers or multi-exposure for example.



The departmental monitoring committees set up under the aegis of the departmental prefects are also favourable places for the local authorities to discuss with all the entities and to get information on the actions planned by the infrastructure managers within the action plans that they are also drawing up.

For their action plans, some local authorities, when they have the skills in-house as well as the tools - a geographic information system (GIS) among other things - choose to work on their own. Most of them resort to a consultancy to support them by gathering and formatting the data, making preliminary studies, managing meetings and writing the document.

During the whole process, Bruitparif can also support you: help in gathering, processing and making available the necessary data, information on the financial aids available, territorial acoustic diagnosis and support during the meetings for the members, experience sharing, publication of tools and methodologies on the extranet website of the Forum of the Ile-de-France Entities...

STEP 3: present the project to the public

Written in the law, the consultation of the general public is an essential step. The draft action plan, written in an accessible and pedagogical way, must be made available to everybody for 2 months. This is when you can collect the comments of the inhabitants on the actions suggested and, if need be, improve and enrich the project. Some local authorities have a register available, while others, like Paris, plan on organising public meetings in order to collect the expectations of the citizens, on the identification of the quiet areas for instance.



Once this step is done, the project will have to be adopted, addressed to the Prefect and published on the Internet.

FOCUS

How to obtain a financial aid from the Ile-de-France Regional council

The project initiators that would like to receive a financial aid from the Region for the drawing up of their action plans are invited to send an email, the earliest possible in the process, to the relevant service of the Regional council in order to get:

- details on the amounts of the aids and the eligibility conditions to receive them,
- the administrative documents to fill the application.

You will have to complete a file describing the context, the organisation of the project, the provisional planning and the estimated financial plan.

You will also have to provide:

- a letter of referral addressed to the President of the Regional council,
- the deliberation of your deliberative assembly.

Be careful: the work cannot start before the allocation of the subsidy by the Region.

After the deliberation and the allocation of the subsidy, a convention will be sent by the Regional council.

Email address to send the applications: ppbe@iledefrance.fr

For more information, you can contact the air-energy-noise service of the Regional council: +33 (0)1 53 85 79 88.



Save the date

On next November 3rd, Bruitparif, in partnership with the Ile-de-France Regional council, is organising a **conference dedicated to the drawing up of action**

plans in Ile-de-France. On the agenda: current progress on the action plans, experience sharing from Ile-de-France local authorities, presentation of the new tools and methodologies offered by Bruitparif, discussions

on how to take into account the sound environment in urban planning and development projects... Book your day for this event that will take place on the benches of the Regional council in Paris.



Every Ile-de-France inhabitant can now access the data collected by the noise measurement stations deployed by Bruitparif in Ile-de-France. Information in almost real time, possibility to select the period of your choice, information on the acoustic characteristics of the noise peaks... the content is rich, transparent and pedagogical. See you on www.bruitparif.fr.

A true website within the Bruitparif website, the interactive platform to display the data of the permanent network gives you access to all the data available as well as the main indicators. Designed to give maximum transparency to the information, it makes the way noise varies in time easy to understand.

By a mere click on the icons indicating the measurement spots on the Ile-de-France map, it is possible to access the data from the permanent stations as well as the reports on the short-term measurements carried out on the territory since the creation of the observatory.

A mine of information in real time

For each of the 28 permanent stations that are currently part of the network, you can consult:

- the presentation sheet of the station (picture and location of the site, equipment used, objectives of the monitoring...);
- the measurement data in almost real time (delay of a few minutes) with a precision up to the second;
- the data of the day, the week, the month, the year or any time period since the activation of the station.

With the zoom functionality, you can view the variations of noise during the time slots considered. The noise peaks (specific acoustic events such as aircraft overflights, trains passing by, especially noisy vehicles, sirens or horns...) are easy to identify on the charts thanks to coloured spots;

- the list and the acoustic characteristics (starting time, duration, maximum level reached...) of all the events that have emerged significantly from the ambient background noise;
- daily charts showing:
 - the average noise level by hour and by period of the day (day/evening/night);
 - the number of noise peaks by hour and by period of the day (day/evening/night);
- some statistics related to the energetic and event indicators by day, week, month or year;
- the analysis and study reports;
- some comments on the sound situation compared with the different reference values in terms of environmental noise.

Many practical functionalities

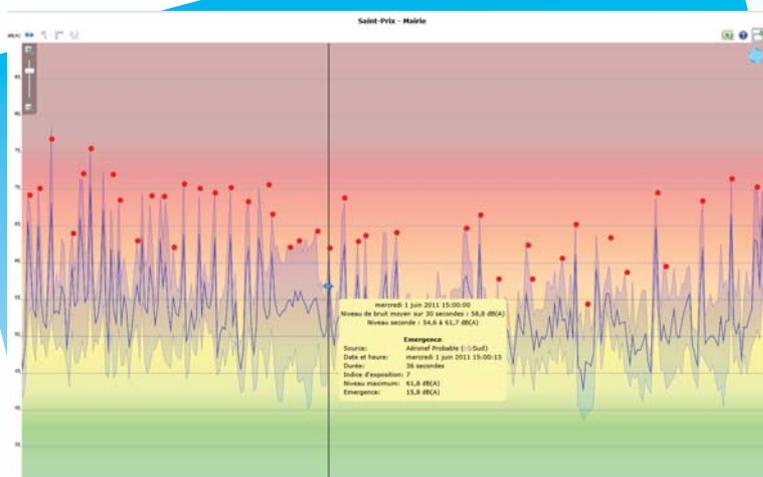
You are offered various functionalities within the platform:

- the possibility to search for the sites located near a stated address;
- a "measurement" tool to calculate on the fly the noise levels for any period requested;
- the possibility to download all the measurement data in txt or excel format;
- a context-sensitive help to make the data and the indicators displayed easy to understand.



The release of this interface was made possible through an important optimisation work of the infrastructure that recovers the data from the measurement stations, as well as the development of expert modules to process the database. The quality of the information published also relies on the involvement of the technicians and engineers of Bruitparif who watch on a daily basis over the good working order of the measurement equipment, their maintenance and the validation of the data.

In the long term, Bruitparif will offer the local authorities and the associations that would like it the possibility to embed the data from the stations that concern them directly within their own websites.



The deployment is accelerating

2011 represents an acceleration in the deployment of the noise monitoring network in Ile-de-France. Reinforcement of air noise monitoring, especially with the SURVOL project, finalisation of the installation of permanent stations in Paris... Fanny Mietlicki, Director of Bruitparif, explains the current progress and the perspectives of the network.



What is the current progress of the Rumeur measurement network in terms of air noise monitoring?

FM: These last few weeks, the Bruitparif teams have been very busy with the deployment of the Sonopodes™. These new urban fixtures, topped with an acoustic localisation system and expert measurement stations particularly relevant to identify air noise, were entirely conceived and built by the teams for the needs of the Survol project.

On the fifteen units planned, four are already located in Bonnelles (Yvelines), Limours (Essonne), Marolles-en-Brie (Val-de-Marne) and Lésigny (Seine-et-Marne) under the corridors of the Paris-Orly airport. Five more have been installed in Saint-Prix (Val-d'Oise), Conflans-Sainte-Honorine (Yvelines), Saint-Martin du Tertre (Val-d'Oise), Sannois (Val-d'Oise) and Saint-Brice-sous-Forêt (Val-d'Oise) for the air noise monitoring related to the Paris-Charles-de-Gaulle airport from the West side of the platform. Three other stations will be deployed this autumn on the East side in Seine-et-Marne. Two more are currently being installed in L'Île-Saint-Denis and Tremblay-en-France (Seine-Saint-Denis) to monitor Paris-Le Bourget. One Sonopode™ has also been deployed in Sèvres (Hauts-de-Seine) in the Brimborion Park for reinforced helicopter noise monitoring.

This plan, complementary to the one managed by Aéroports de Paris (ADP), will provide precise information on the characteristics of aircraft acoustic events, in order to monitor the effects of the various noise abatement actions that will be implemented. One of the first effects to document will be the one of the 300-metre rise in approach flight paths planned for autumn 2011.

Some local authorities are very interested in having air noise monitoring on their territory, what can you answer them?

FM: Considering the cost of a totally equipped Sonopode™ (40 k€), it is not possible to multiply the number of units on the territory. The locations have been chosen based on objective criteria taking into account the noise data collected during a wide preliminary measurement campaign and the data on current or short-term flight paths. There was also a will to deploy these equipments in areas that did not yet benefit from permanent monitoring by ADP.

Nevertheless, we are aware that the current number of deployed stations is not sufficient to provide information in any point of the Ile-de-France overflight areas. This is the reason why we are working on deploying complementary stations with less expert functionalities, which are consequently less expensive, in areas considered of interest. Several air noise monitoring stations have already been installed in Pierrefitte-sur-Seine (Seine-Saint-Denis) and in Paris 18th district (airplane noise monitoring related to Paris-Le Bourget and Paris-CDG), in Issy-les-Moulineaux (Hauts-de-Seine), Paris 15th district and Paris 14th district (helicopter noise monitoring) and in Villeneuve-le-Roi

(Val-de-Marne) (airplane noise monitoring related to Paris-Orly). We are also currently working, in partnership with the Advocnar, on deploying a dozen complementary stations in Val-d'Oise for a pilot project supported by the Val-d'Oise General council, the Ile-de-France Region and the local authorities concerned (Vallée de Montmorency Agglomeration community, Val et Forêt Agglomeration community and Enghien).

How is the deployment of the monitoring network planned for Paris going?

FM: In Paris, the deployment of the stations is now almost complete in accordance with the provisional monitoring plan that was drawn up in partnership with the services of the Urban Ecology Agency. 8 permanent stations now document varied sound environments Parisians are subjected to:

- 2 road noise measurement stations: along the Paris ring road and on place Saint-Michel
- 1 rail noise measurement station: next to the Lyon train station
- 1 measurement station for road/aerial metro multi-exposure: on place Stalingrad
- 3 air noise measurement stations: Paris 14th district, Paris 15th district and Paris 18th district
- 1 festive noise measurement station on quai de la Gare (related to the noise generated by the festive activities of the berthed barges...)

A ninth station should be deployed before the end of the year within a quiet area of Paris, following the public consultation that will take place to draw up the action plan of the city.



What are the evolution perspectives of Rumeur in the other departments?

FM: The Val-de-Marne department will have 7 permanent measurement stations by mid-2012 (see p.7). In the other departments, we are now going to work on drawing up noise monitoring plans for land transportation, based on the road and rail noise maps, the evolutions expected in terms of land and transportation development and the expectations expressed by the different stakeholders. This work should contribute to complete the measurement network along land transportation infrastructures with 20 to 30 stations by 2015.

The sound environment perceived by a hearing-impaired population

In partnership with the CNAM (Institute for engineering studies), Bruitparif launched a noise perception survey towards a population mostly equipped with hearing aids. Have they carried out an especially noisy working or leisure activity? Are the noise-related annoyance and effects different from the ones felt by a panel with good hearing? How aware of the risks are they? Here are the main answers.

The 3rd-year students of the CNAM/CPDA (Preparatory centre to the hearing aid specialist state degree) contributed to this study during their work placements at hearing aid specialists'. A total of 624 people have been interviewed: 53% were male and 47% female, aged 56 years in average. 62% have been wearing hearing aids for 8 years in average.

57% of the interviews have been conducted in Paris, 21% in the inner suburbs, 12% in the outer suburbs and 10% outside Ile-de-France.

26% have carried out a very noisy professional activity

26% of the respondents declare they carry out or have carried out a very noisy professional activity, 45% a moderately noisy one and 29% a little noisy one. Industry, agriculture/parks, construction, but also music, shows and catering are the activities considered as noisy.

Among the people who carry out or have carried out a professional activity considered as very noisy, only 21% use or have used hearing protections. The youngest protect themselves the most: 36% of less than 30-year-olds versus 25% of 30-59-year-olds and only 15% of 60-year-olds and more. Seeing that, it is reasonable to think that the information and the 2003 noise at work regulations now improve the protection of employees.

48% of the respondents carry out or have carried out a very noisy leisure activity. Among these people, only 18% use or have used hearing protections: 22% of less than 30-year-olds, 18% of 30-59-year-olds and 16% of 60-year-olds and more. Can it be inferred that the information and the awareness actions on the risks related to noisy hobbies is starting to be effective among young people? We hope so.

For 23%, noise has become more irritating

The consequences of wearing hearing aids over daily noise perception vary according to people: 37% now find noise less irritating, 40% as irritating, whereas for 23%, noise nuisances have become more irritating.

Among the locations where the respondents are annoyed by noise, means of transportation rank first, followed closely by the work place, then by leisure places and home.

At home, neighbourhood noise (33%) is the main nuisance source, before road noise (26%), activity noise (18%), as well as noises related to behaviours inside the accommodation (household appliances, TV, discussions). As a reminder, road noise (49% declare they are annoyed) ranks before neighbourhood noise (40%) in the 2007 Health-Environment Barometer by the INPES.

Risks are for other people!

When the respondents are asked about the health risks related to noise exposure, there is little difference from the answers given by students in the survey conducted by the CIDB within 20 Ile-de-France high schools. For 78% (versus 61% of the teenagers), noise represents a rather or very high health risk for French people in general,



whereas only 43% (versus 32% of the high school students) consider it important for their own health. If the awareness of the risks gets a bit stronger with age, danger is still for other people.

It is to be noted that 22% of the people who carry out or have carried out a very noisy professional activity think that the risk is low for them and high for others!

And yet noise is not without consequences

As collateral effects, the respondents declare that noise often or very often causes tiredness (44%), difficulties to focus (33%), nervous tension and stress (33%), some irritability (29%) and headaches (26%).

56% hear tinnitus in their daily life and assess the quality of their hearing as 2.6 versus 2.9 (on a 1 to 5 scale) for people without tinnitus.

All these results make a good case to continue information and awareness actions at all ages.



Focus on our actions in Val-de-Marne

Following its merger in 2009 with ODES 94, Bruitparif carries on a reinforced action programme on the Val-de-Marne territory: development of the sound repository thanks to a wide road noise measurement campaign, deployment of the monitoring network, support to local policies, awareness operations, all these actions have been made possible thanks to the commitment and support of the General Council to better manage the sound environment.

50 road noise sites documented

To improve the knowledge of the sound environment of the department, Bruitparif has just carried out a wide campaign aiming to characterise the exposure of Val-de-Marne inhabitants to the road noise of the departmental network especially. In order to determine the most relevant sites on a 245 km² territory and a road network of more than 700 km, the teams did a significant preliminary work. Identification of the areas above threshold, presence of noise sensitive buildings, even geographic distribution, documentation of the different network typologies... Bruitparif crossed the different criteria to position the measurement stations at the best places.

Around fifty sites have been documented with:

- 6 permanent stations installed continuously for 2 months on lampposts;
- 12 one-week measurements made from the facades of local residents;
- about 30 one-hour samples made with Bruitparif's laboratory vehicle.

The results of these measurements will help better understand noise variations according to traffic parameters. They will also contribute to the validation and the update of the strategic noise maps as well as the selection of the most relevant areas for the installation of 2 new permanent stations.



7 permanent measurement stations soon

Before summer 2012, Val-de-Marne will have 7 measurement stations for a reinforced noise monitoring in the department. The first two stations have been deployed so as to document the nuisances related to the Paris-Orly air traffic: one in Marolles-en-Brie and the other in Villeneuve-Le-Roi.



In addition, the town of Villeneuve-Saint-Georges should get two networked stations to document a context of multi-exposure to road, rail and air noise.

Finally, one station will be dedicated to rail noise monitoring (site not yet defined) and the last two will be focused on road noise in the areas decided as relevant from the results of the measurement campaign.

Support to local policies

In order to help the Val-de-Marne local authorities draw up their action plans, Bruitparif made a territorial acoustic diagnosis for every one of its 47 towns. The objective of this work is to get information from the strategic noise maps by crossing them with other available information (land use plan, population density, urban development projects, nature of the buildings, orthophoto...).

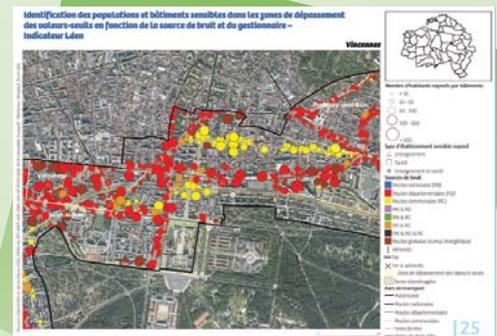
Every town received an atlas with 12 maps to make easier the identification of potential quiet areas and areas where actions could be considered, for example because they highlight areas with multi-exposure to various noise sources or above limit values.

In these areas, a particular attention has been given to the presence of noise sensitive buildings (accommodations, schools and hospitals) and future urban development projects with departmental and national stakes (ZRUs, ZUSs, ANRU areas, OINs...). This decision-making document gives you a more specific vision of the stakes of the actions considered, whether they are preventive or curative.

The town of Vitry-sur-Seine for instance has already started drawing up its action plan and relied on this work to determine and prioritise the areas where actions were needed.

Awareness actions

Finally, as the quality of the sound environment is everybody's business, awareness operations have been organised in Val-de-Marne schools. These actions aim to make teenagers aware of the risks they take when they are exposed to high sound levels.



Bruitparif selected for the Life+ programme

Bruitparif, in partnership with Acou-cité, the sound environment observatory of Greater Lyon, has been selected by the European Commission to receive funding within the Life+ programme. The HARMONICA (HARMONised Noise Information for Citizens and Authorities) project aims to reinforce the assimilation of the sound environment issue by the general public and public authorities in order to increase the effectiveness of environmental noise abatement policies:

- by facilitating the access to the information on the sound environment and the possible actions,
- by making this information understandable,
- by harmonising methods and means to compare the different territories and evaluate noise abatement actions.

This will be done with the creation of an innovative common noise index, easy-to-understand by the general public. The index will take into account both information from the strategic noise maps and measurement data from the monitoring networks. It will be usable both at a very local scale for each measurement station and at a very large scale for every agglomeration.

The index will be displayed on a web portal in order to improve the access to the information and the understanding of the general public and public authorities. Dissemination to other European partners will be an important part of the work so that the European cities with a monitoring network can fill the platform.

Decoding

Parliamentary report on noise nuisances

A source of annoyance ranked first by the French, "noise is often neglected in public policies," the MPs noted in the introduction of their report.

Presented last June 28th in front of the Sustainable Development Commission of the French National Assembly by the MPs Philippe Meunier and Christophe Bouillon, this report led to 19 proposals about **4 main topics**:

- **transportation infrastructures**: taking multi-exposure into account when processing insulation aid applications, raising the financial means allocated to the fight against noise (from 150 to 450 million euros a year), implementing a "heart of the night" air curfew at the European scale, insulation aids for people living close to airports with fewer than 20,000 movements a year...
- **control and repression**: better enforcing neighbourhood noise regulations, on the one hand by council officers, on the other hand by the police through the appointment of noise officers, developing mediation...
- **information and prevention**: sound environment education at school, training architects better in acoustics issues, information on the sound levels in public spaces, launch of a wide national campaign on the topic: "Too much noise kills your ears"...

Recommendations

Quiet we're driving!

This is the title of the new publication signed by the French Road Union (URF). Aware of the annoyance related to road noise, all the members of the industry are taking action to reduce noise nuisances. Infrastructure and vehicle manufacturers, transportation professionals, road managers, tyre makers, road users... are committed and want it known.

Find out the innovative technical solutions and the recommendations in terms of prevention and education on this document available on www.unionroutiere.fr



Progress report of the French National Noise Council (CNB)

Presentation of the 3 statements issued to the Minister of Ecology (terms of classification for land transportation infrastructures, acoustic improvement of the buildings receiving young children, mechanical sports), new helicopter decree, circular letter from the Ministry of Justice to make easier the implementation of the neighbourhood noise decree, assessment of the actions of the many working groups...

Discover all the 2010 activities in this report available from the general secretary of the CNB



Heat pumps and sound environment

Because an ill-integrated heat pump can be an annoyance for the neighbourhood, the acoustics commission of the French Association for Heat Pumps (AFPAC) has just published a recommendation sheet. Basic rules for a good installation, calculation of the sound level of a heat pump, regulation reminders... professionals and individuals will find much needed practical advice.

To obtain this sheet, you can request it on www.afpac.org



Agenda

> September 24th and 25th, 2011

For the Park Festival of the Val-de-Marne General council, Bruitparif will be present at the Park of the Blue Beach in Valenton. Among the many educational and entertaining activities to make the public aware of the various environmental topics, the Bruitparif teams will have a stand on the sound environment and will organise sound walks.

> October 20th, 2011

The CIDB (Noise Information and Documentation Centre), in partnership with VQA (Daily Life and Hearing), is organising a thematic day "Sound quality and hearing comfort for all in the tertiary sector" at the CNAM (Institute for engineering studies) in Paris. Aimed at DHRs, handicap safety prevention managers, health, hearing and acoustics professionals, this conference will shed light on this issue and will provide examples of concrete solutions to favour good working conditions.



The Francilophone

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