Bruitparif

Observatoire du bruit en Île-de-France

Bruitparif
Observatoire du bruit en Île-de-France

Opening address by Ms Hélène Gassin, vice-president of the Regional Council of Ile-de-France, in charge of the Environment, Agriculture and Energy

For the Ile-de-France region, the stakes concerning exposure to noise are very high: a high density of infrastructures with 40,000 km of roads, two international airports, a heliport, several aerodromes and many industries generating noise, with 12 million inhabitants, that is to say 20% of the French population over less than 3% of the territory.

The implementation of the first deadline of the European directive on noise nuisances has allowed us to gauge the challenge : over two million inhabitants are likely to be exposed to noise levels above the limit values recommended by the directive, and road traffic is responsible for 75% of this overexposure (just before air traffic and railroad traffic). Bruitparif, in partnership with the WHO European office, estimates that 66 000 years of life are wasted every year because of this exposure to noise nuisances. This little known fact shows that it is a major issue of public health for Ile-de-France local authorities and the regional council. A perception survey showed that 71% of inhabitants of the region claim to be bothered by the noise, most of them in a “daily and permanent way”. Lastly, 56% of the inhabitants of Ile de France say they feel like moving elsewhere, and exposure to noise obviously also plays its part there.

The region is mobilizing, through the financing of operations aiming at eradicating some particularly serious problems regarding noise, and through the creation of Bruitparif, the regional observatory of noise, which gathers all stakeholders in Ile de France and plays a role of expertise and exchange and is in charge of making noise maps and preparing noise reduction plans.

The European directive is obviously difficult to implement over a territory as complex as the Ile de France, but it is an opportunity to embrace an issue that has been long ignored, even in the thinking of environmental policies. Noise has long been considered as inevitable in modern life, a secondary effect against which it was not really possible to struggle, and this while building dwellings and noise-generating roads in the same places.

But thanks to the directive and the groundwork laid by Bruitparif, a change of paradigm has been started: noise is now included in the thinking ahead of urban projects and land planning: speed limitations, road pavement, layout of buildings, creation of quiet zones, etc... This impetus is shared, and sometimes even preceded, by other European agglomerations, as today’s presentations will show.

Introductory statement: Michael KLINKINBERG

Eurocities is a network of major European cities. We actually work on a large number of policies, economic development, social affairs, culture, including the environment. One of our missions is to tell the EU institutions what the potential is of cities to achieve EU goals. We do believe the cities are actually at the heart of the European agenda today. Three out of four people in EU live in cities and 85 % of the GDP in Europe is created in cities. The cities also have a lot of potential on the environment, two third of CO2 emissions come from cities and 80% of energies are consumed in cities. A lot of things in Europe can achieve more if it works better with cities.

But of course there's also the question of environmental health and the health of our citizens. Aside from the great initiatives that we already have, we also need to look at the health of our citizens and the quality of life. Noise is only second to air quality when it comes to years of life lost in European cities, so noise is really one of the very biggest problems on environmental health in cities. But, noise has a lot of effects on our economy as well; think about real estate prices close to busy roads as an example.

The question is then, what can we do with this kind of problems? What we try to do is actually say that in cities, a lot can be done without working very much, but maybe we should sometimes start earlier than that when it comes to the source of noise: what about the engines of a truck, of a car? What about airplanes and stealth technology that could be used? What about the technology used for rolling stock? At the moment, there's a revised regulation being discussed in the European parliament about the cancelling of the noise from motor vehicles. We're trying to use the expertise of our city experts to inform the legislators and make clear that they need to start this work now, to complement what is being done by the experts in the cities with a known collection on noise.

In EU cities, we know how important it is to exchange experience between experts, so we do it with our city experts on the EU working group on noise. We're really happy to see that we have this meeting today as well, and I'm looking forward very much to exchange and to hear from you about the problems you have, the things that don't work, the very best practices that you have done, so we can all learn from each other and look forward with reducing the noise.

Welcoming address and presentation of the day's schedule by Ms Julie Nouvion, member of the Regional council and president of Bruitparif

.

It is a real pleasure for Bruitparif to welcome speakers from all over Europe, to exchange and put in common our practices, trials, experiments and positive results in the area of the prevention and management of city noise.

Bruitparif is the noise observatory of Ile de France; it is the first associative structure in Europe working on noise at a regional level, and an evidence of the will of the region to make a priority of the struggle against noise and to preserve our sound environment. Bruitparif includes 50 members, in six colleges: the state, the region, other local authorities, great transport operators, sound professionals, and representatives of associations.

Bruitparif works daily to the implementation of three complementary missions: noise assessment, supporting public actors and awareness-raising of the general public. An objective evaluation is made every year, as well as a monitoring of noise evolutions, thanks to a monitoring network spread across the whole region. As of today, over 300 short-term measures have been made, and 34 sites are being continuously monitored, which allows for consolidated mapping on a regional level. This data is then used to produce analyses and studies, which are then made public via the Internet website http://rumeur.bruitparif.fr/

We support public actors so that the noise environment is taken into consideration in the large land planning policies and so that local authorities implement efficient environmental noise prevention plans in accordance with the 2002 European directive. On our website, the Forum of Actors for a Better Management of the Sound Environment is meant to be a space of dialogue and exchange of ideas where good practices are promoted.

In order to make the public at large more aware of the prevention of hearing risks, Bruitparif regularly takes part in forums and workshops in Ile de France, to present experiments and to measure the sound level of mobile music players, and they participate in parades, demonstrations and music festivals, by displaying the noise level generated by amplified music on-site.

Bruitparif is involved in facilitating the implementation of the European directive by informing authorities on regulation requirements and the steps to follow to build a Plan of Prevention of Environmental Noise, and it also participates in their steering committees. The situation of pre-litigation between France and the European Commission due to the important delay in the former's implementation of the 2002 directive has led Bruitparif to strengthen its support by proposing a framework of writing for such PPEN, models of documents and mails so as to accelerate the process. All these documents and tools are being regularly presented within training sessions.

Bruitparif also works at promoting new approaches, new methodologies and indicators within a harmonized European framework and thus participates to the working group Noise of Eurocities and to the Life+ project of the HARMONICA initiative, which aims at devising a noise index easily understood by the general public. They also participate to the Quadmap project which aims at identifying and managing quiet zones at the heart of urban centres

This day will be the occasion to have an overview and assessment of the implementation of the European directive and to discover a few examples of policies against noise implemented in Paris, Barcelona, Rotterdam, Brussels or Vienna.

Round table: assessment of the implementation of the European Directive 2002/CE/49 and evolution prospects

M. Marco PAVIOTTI, General Direction of the Environment, European Commission

The European Noise Directive is based on three major elements: assessing the situation, informing the general public and involving the public in the writing and adoption of action plans. These three elements are the essence of the directive.

So far, the directive has been in place for ten years, but its implementation is low, with 70% of EU coverage concerning the noise maps and the data related to the noise maps. There are two concerns regarding the two other axes, the information of the public and involving the public. Probably 20% of the action plans have been implemented so far. It's not a reassuring number, five years after the deadline, as the action plans are the final objective of the directive. We launched an online consultation a few months ago and we've received about 700 replies: 75% of the respondents say that they have not been involved at all in any action plan, although it's a clear requirement of the directive.

We have only half the numbers so far, because we have several elements that add up to an unclear situation. It is probably confirmed that we have about 30% of the EU population exposed to noise levels higher than those foreseen by the directive. This may add up to about 2 million healthy life years lost each year and roughly, from 15 to 20 years from now on, if the situation doesn't change, we will have dramatically reduced the exposure to bad air quality but we will not have reduced the exposure to noise. So it may be that in 15-20 years, noise may be more relevant than air quality in terms of health contribution, if the situation remains unchanged.

We have started receiving some feedback from the member states, and there are at least a few situations where a member state says: "we will not revise the noise map between one round and the second round, because despite of the fact that we have published an action plan, we won't see any change". Statistically, at the moment, it's within the boundaries of uncertainty that we have a constant: we are not heading toward a solution to the problem. Why? Because we're missing an EU strategy. There are different on-going actions, even directed at the source - which may be, and are proved to be, the more effective means to resolve the problem - but they are not based on a target at a EU level. So that we don't have any idea of what we want to solve. Therefore, there are actions at a EU level, driven by the idea, more or less, that "the car industry can do this", and on the other hand, at a very local level, you have actions where the municipality and the mayor decide that in order to protect their citizens they are going to build another noise wall. So in the end, we're missing a clear understanding of where we want to go.

M. Colin NUGENT, European Environment Agency

The EEA is a European independent agency which job is not to regulate but to make assessments on Europe's environment at least every five years.

We also look beyond the European Union with 39 cooperating countries, many of them are not members of the EU, and so we can seek data related to and from a wide spectrum of communities and cities. The legal mandate that requires us to assess Europe's environment means that we must interact with these countries and get data in relation to noise, and of course the directive requires a lot of different types of information to be reported. In fact, if you read the directive, it can be quite chaotic when it describes what needs to be sent and when it needs to be sent. So one of the first things the EEA did is to establish a reporting mechanism to try to put order in the way this should be sent to the agency and also to the European Commission. That was first introduced by the first run of noise mapping five years ago, and now that we are on the verge of the second run of noise mapping, we have made improvements in order to improve the data flows. We've experienced a lot of gaps, lack of data and lack of reporting in the terms of the directive, but nonetheless, it is the legal mandate of the EEA to make assessments of Europe's environment, and after the first run of noise mapping we were able to make some efforts to do that, with our State of the Environment report in 2010. This week, we're launching a Transport and Environment report in Brussels; it contains some new information on noise and the very latest run from noise mapping data, as reported until June 2012.

What that information tells us is that in cities, three out of five people are exposed to levels above 55 dBA, and 103 million people are exposed to raw traffic noise, both from major roads and roads inside of cities in Europe. But let's remember that figure is at least that amount because there are still a lot of gaps. There are no EU countries that have not reported anything, but there are still a lot of gaps. The action plans must be based upon this data. It's difficult to see how incomplete noise mapping can inform action plans appropriately, but it is encouraging to

talk to people in the Eurocities network, to people on a regional basis, because I do find that things are happening on the ground, and perhaps it's just a case of a lack of reporting rather than a lack of action. So I do find that quite encouraging.

But certainly it is my legal mandate to try and make assessments of Europe's environment, and let's not forget those assessments would inform the Commission and the politicians in Brussels, about what might need to be done with noise legislation and what improvements might need to be made. Against the backdrop of poor reporting, we do not have the capabilities yet to make a robust assessment of Europe's noise environment.

M. Pascal VALENTIN, Mission on noise at the Ministry of Ecology, Sustainable Development and Energy

Noise mapping concerns both large roads and large agglomerations. For the first run, this involved 10,000 km of roads, 1800 km of railroad and 24 agglomerations (1296 towns) for 815 relevant authorities. The second run concerns a further 19000 km of road, 5000 km of railroads and 34 agglomerations. It is therefore quite a wide range.

The French government has quickly made the choice to delegate the realisation of the noise mapping of large infrastructures to the state, whatever their status (national road, departmental road or town road) and the devising of the action plans (PPEN) to the managers of these infrastructures.

For agglomerations, responsibility has been handed over to the town composing them, or, when they exist, to the public establishments of inter-cities cooperation which had jurisdiction in the area of the fight against noise nuisances.

France is rather behind in the implementation of the European directive, which can be explained first by a late start, already seen in the transposition of the directive (first ordinance in 2004, and last texts published in 2006). The European Commission then initiated in 2011 a prelitigation process against France, which was held to account on the progress of the implementation of the directive, and the estimated schedule to handle or reduce the delay. A ministerial direction was sent to prefects in November 2011, asking them to publish the maps and the plans of prevention of environmental noise within the competence of the State without delay and to implement the substitution proceedings laid out against competent authorities other than the state, and to see to the reporting of the documents expected for the second run in time.

In parallel to these directions, France committed to reporting its work to the commission on a quarterly basis. Unfortunately, the data transmitted to the Commission in December 2011 has not convinced the commission, as it noted that the documents produced by France showed that all the maps had not been elaborated yet.

All departments have published noise maps for large road and railroad infrastructures, but one department has not published those for large road infrastructures yet. 37 PPEN relating to large road and railroad infrastructures have been published and 21 PPEN should also be published by the end of the year 2012. 22 PPEN are being finalized, and 12 are in the early stages of completion. 4 PPEN for airports have already been published, 3 are about to be published, and 2 will be completed at the beginning of 2013.

7 PPEN within the competence of departmental councils have been published. But one of the difficulties felt by local authorities related to the division between "very large infrastructures" and smaller ones, which was not always very well understood.

As regards noise maps and the PPEN of large agglomerations, the authorities who were appointed as competent were not always authorities over whom the state had much power to exert pressure, except through substitution proceedings which state representatives have used very parsimoniously. When sending the direction in December 2011, 37% of townships had published their noise maps and 50 % were being elaborated. 13% had therefore done nothing in 2011. Today, 69 % of townships have published their noise maps and 20 % are being made. 23 PPEN of large agglomerations have been published.

The making of noise maps for the second run (which the directive requires to publish by June 2012) concerns 428 townships distributed in 34 agglomerations: 35% of these towns have completed their noise maps, and 17 % have approved them, 15 % are reported to be in the making. 50% of the towns have not completely started the process yet, that is to say 215 townships.

The Commission cannot be satisfied with such a result, but France has tried to take advantage of the lessons related to the difficulties met during the first run. The situation is sensibly evolving, and a first reporting on the realization of the mapping of the second run will be sent to the European Commission in December 2012.

The evolution is due to an increased mobilization of the survey offices which have raised the awareness of the towns and EPCIs (groups of towns) concerned, as well as to a sustained activity of agglomeration observatories, among which Bruitparif in Ile de France, and to awareness campaigns led notably by the CIDB. The ADEME has mobilized over 120 million euros to achieve its operations in catching up since 2009 within the framework of its noise plan; the Ile de France region has dedicated 22 million euros over the last ten years. In 2013, regular reporting to the Commission should therefore be expected.

Marco PAVIOTTI

I want to thank Mr VALENTIN for this very extensive presentation of the situation in France. We're not here to point the finger to France just because we're in Paris. There are specific situations for each specific member state, and the Commission is treating every single situation separately depending on whatever is seen there. We're aware of the difficulties at your level; it is sometimes difficult to make the decision whether to proceed or not to proceed. At your level, an overall round of noise mapping would mean no less than 100 million euros but a rough estimation would go towards 250 million euros if it's well done, maybe even more than that. We're in the middle of an economic crisis as well, so it's difficult for the administration to lend contracts and so on, but the whole exercise should serve to the final objective which is in the directive. It's not an exercise that we ran just because there's a piece of paper that tells us to do so. We think that this public money, at your level, has to be spent, in order to seek the results that we›re expecting.

The involvement of the public may actually trigger correctly the action plans. Otherwise, there are specific studies which are done, but they do not produce the overall benefit they were initially meant for. In that sense, we have to look at any action that the Commission is taking to push the member states to fulfil their obligations.

We know it›s particularly difficult for big countries that have chosen, in their complete right and freedom, to delegate all the actions to local authorities, but the Commission is aware of that and is trying to provide the members states with the means to implement the directive correctly, and with as little effort as possible. This is the case through the EEA report mechanism and the possible common noise assessment method for which we are developing guidelines, and as well, possibly, in the next future, action plans.

M. Henk WOLFERT, Eurocities

In the past, before the review of the END, we drafted a position paper about the END in our working group. That position paper was used during the official review of the END by the three partners who were commissioned by the European Commission. Based on that position paper we made a policy statement. As Eurocities, we concluded that the first round of noise mapping was very useful because it gave us, for the first time in history, an important overview of the noise situation in Europe, and especially in cities. We know it's just an indication because there are a lot of inaccuracies, not all data were made available and we didn't have the so-called common noise assessment method.

The END is just a part of a total European noise policy, a framework of directives. Yesterday we had a meeting and reports about the actions that have been taken over the past few years by the cities, and it's really poor, not many cities have taken measures in order to reduce the noise, and there are a few reasons for it. It's not only that cities or member states are reluctant to do it, but it's also because we're expecting from the EU that they will reduce the noise at source, because that's the most cost-effective measure to take ; and it's possible, the technology is available, to reduce the noise at maybe 3 to 5 decibels. It would be far less costly than taking all kinds of measures in cities. Of course, we're also promoting all kind of measures that can be taken at the local level. Eurocities produce leaflets on quiet road surfaces and we share information in our working group.

A combination of the two approaches has two strengths: first, a stricter policy on reducing noise sources, and on the other hand, cities taking their responsibilities. By doing that, the EU can be a shining example and would stimulate cities to do it. We have to face the financial downturn at this moment, and that limits possibilities, but we think that the END can be improved, it could be made more effective by all kind of things.

At Eurocities, we don't like limit values in the END because it can work in a positive or negative way, but maybe some targets, as for CEO2, would be great. Implementations could be improved by granting more time between noise action plans and the noise maps, because today it's just one year, which is very short. The Commission also wants us to report noise levels as from 45 to 50 decibels, which will introduce, again, a lot of administrative burden,

especially when we know that noise maps are quite inaccurate, maybe we should give more attention to improving the noise rates. The good practice guide that was produced by the working group of the Commission could be improved as well, because in the meantime we have had a lot of experience and the report published by the so-called Noise Map Project that was run in Amsterdam and few other cities.

In my personal opinion, it would be good to have a portal, or maybe an overview of all best practices in Europe, in order to provide cities with possibilities to reduce the noise. Now we have a lot of projects that have been done and it becomes difficult to find all the resources that have been spread on the internet.

We also have to work on the political level because priority is given to climate and to energy, not to noise, but maybe looking or searching for links between noise and mobility, noise and health, noise and economy, noise and other policy domains, would be a step forward in the achievement of the goals of the END.

Ms Miriam WEBER, DCMR agglomeration de Rotterdam

Although the Netherlands has had noise legislation in place since the late 1970s, the implementation of the EU Environmental Noise Directive has led to significant changes and adjustments in noise policy planning at all governmental levels.

The traditional Dutch approach consists of assessing noise exposure of spatial and infrastructural plans against preferred noise limits and maximum allowed limits. This concerns noise from road traffic, railway traffic, industrial areas as well as aviation. As such noise problems are prevented and an optimum in spatial and environmental planning is sought. In addition dwellings with high noise exposure levels are insulated, financed via state budgets in a program that has already been running for several decades.

The END added new elements to the Dutch noise policy practice, by way of requiring strategic noise maps and noise action plans to be drafted by municipalities being part of an agglomeration, such as Rotterdam. In 2006, the first steps were made, and currently we are evaluating the results of the first round of noise mapping and action planning – while drafting the Rotterdam action plan 2013-2018. More details on the content and lessons learned will be the topic of the next round table of this conference. In this session, I would like to give some reflections on the future challenges at European Commission level.

Last week, I heard Marco Paviotti from the Commission uttering a rather bold statement during a soundscape workshop in Vitoria Gasteiz. He stated the following: “The EU noise source policy will not result in any significant reduction of noise emission levels for the next 20 years”. Experts, policy officers and lobbyists, when asked for their opinion, will underline this message, sadly. As many examples have and will demonstrate that specifically stringent EU noise source policy is a necessity for improving acoustic environments and the wellbeing and health of the EU population.

To illustrate this, an example from Rotterdam: one of the approaches defined in the noise action plan of 2007 was to apply low noise pavement in order to decrease the number of noise exposed and annoyed persons. Over the last 3 years, in total 5 150 meter of roads have been layered with low noise pavement which amounts to a reduction of 276 annoyed or 137 highly annoyed persons. Or rather, less than 1 % of the number of citizens being annoyed by municipal road traffic. These are rather depressing figures, even more so if we take into account the budgets needed for implementing these noise abatement measures. The annual budget for road maintenance in Rotterdam is € 30 million; this budget had to be increased by € 750 000 per year in order to invest in low noise pavement. This amounts to an increase of 25% in current budgets.

The story though gets even more disillusioning: in the last years in which the noise action plan was implemented, Rotterdam had to build new residential areas and houses as well. Due to economic and societal changes, such as an increase of people moving to cities, of 1 or 2-person households and of elder people living healthier longer and on their own, we are required to provide more houses in compact cities. The effect on noise policy ambitions is perfectly illustrated in Rotterdam, where 3 790 additional people are annoyed compared to the noise mapping exercise in 2007! This figure is 13 times as high as the reduction of annoyed persons achieved through implementation of low noise road surfaces!

What to conclude? Cities are in urgent need for stringent noise source policy in order to address the noise problem adequately and in a cost-effective way. The toolbox at local administrative level needs to be filled with EU policy instruments.

One other topic I would like to shortly address in this session concerns noise modelling and calculations. The European Commission is obliged to develop a common and harmonized approach in calculating noise exposure, which is addressed in the CNOSSOS initiative. Although I underline the need to develop such tools in order to deliver sound, uniform and transparent data for EU policy, I urge for attention being paid to the negative implementation effects of such a tool at local governments. Changing modelling techniques, software as well as data accuracies results in differences in the outcome that are almost impossible to assess and explain to politicians and other decision-makers.

Although we used recommended and approved models and software during the first and the second round of noise mapping, the differences between the former and the current approaches are enormous. At the lower noise exposure bands for road traffic noise, we calculated approximately 25% more persons being annoyed than in 2007. At the higher exposure levels we had a decrease of approximately 50% of annoyed persons. I can honestly state here that these effects are NOT due to the measures taken according to the noise action plan.

Another example of the impact of changing calculation methods proved the recent adaptation of the Dutch standard calculation method. Measurements during recent years showed that noise emission levels from highways are 2 dB higher than calculated. Consequently this summer the calculation methods were revised. The effect though is that for Rotterdam the number of people being annoyed by highway traffic increased with 70%. In terms of costs for additional insulation measures this amounts to around € 80 million!

To conclude, in developing an EU harmonized approach the European Commission and Parliament should not underestimate the implementation effect at a local level in terms of political and societal feasibility and acceptability of the CNOSSOS instrument.

Ms Fanny MIETLICKI, Observatory du Bruit en Ile de France

In France, the responsibility for making noise maps for large infrastructures was given to state services as well as to municipalities making up the agglomerations. The situation is complex for the Ile de France, a 12 000 km2 territory, where 12 million inhabitants live. This is a territory of continuous urbanization regrouping 87% of its inhabitants over 23% of the territory of the region. Within the administration of the region, 250 authorities have been held competent to publish the maps! Each local authority has had the choice to publish their own noise maps, even if the departments and Bruitparif have tried to encourage municipalities to regroup to try and harmonise the work. All in all, no less than 23 different projects have been launched. During the work of consolidation and gathering of data to produce global maps, we were able perceive the heterogeneity of the methods used.

However, the stakes could be quantified and we got a better insight of the issue, with about 20% of the population potentially concerned by values over the limit, that is to say 2 million inhabitants. Sometimes the population faces multiple exposure: road traffic, railroad and planes, which involves no less than 60 000 people over the agglomeration of Paris

Beyond the noise mapping, we also worked on highlighting the stakes over the whole territory, through maps of indexes of population exposed beyond critical limits, which often are more meaningful that environmental noise maps, as the latter do not highlight the populations exposed: a good propagation of noise is made easier by roads along which there are few dwellings, and these roads will stand out in red on the maps, while few people will be concerned.

The first estimates have allowed studies on the health impact, from which it comes out that 66 000 years of life are wasted by noise over the agglomeration. The progress of action plans has undoubtedly fallen behind, in many areas the projects have not been launched yet, but some action plans have already been adopted and many others are being finalized.

Several wishes of evolution on the basis of the feedback:

- The notion of agglomeration should be more clearly defined for it remains very heterogeneous among the member states. In France, the notion of agglomeration does not meet the concept of an administrative body, which makes the implementation of the directive difficult.

- In France, the way the directive was transposed made things complex, with a multiplicity of actors involved in the making of maps. A single authority competent for each agglomeration to do the maps would be much more efficient

- The concept of agglomeration observatories should be encouraged and would allow studies not to have to do often very technocratic and costly studies, particularly for mapping aspects. Third-party bodies, more independent, would avoid the risk, which was often encountered, not to publish the maps because they reveal issues that politicians do not wish to reveal to the public.

- Bruitparif estimates that on a European level, a harmonization of limit values is necessary, such as it exists for air quality. The notion of noise appreciation varies according to populations, their history, their way of life and their culture, yet the health effects are better and better known, and thus objective and concrete effects on health should be identified

- Current noise indexes still remain far from what is perceived by the general public. They are at the moment average energetic indicators, which cannot easily be communicated to the general public, in particular as regards the issues of air traffic or train passing. Complementary indicators in addition to energy indicators are therefore wished for.

- The European directive is an excellent opportunity for the mobilisation of local and regional authorities and stakeholders, but its implementation remains too sectorial, while in practice the population is often exposed to all sorts of noise (road traffic noise, rail road noise, air noise or industry noise). People often suffer from very high levels of exposure to several different noise sources.

- In urban centres, the issue of festive activities is becoming a sensitive one, which mobilises strongly local actors: we lack assessment methods for these important problems in cities.

- The notion of quiet zones remains to be specified, in its definition as well as in the methodology of identification. The Quadmap project is a first step in that direction.

- Beyond a goal of means employed, the action plans could evolve to integrate goals of results.

- The information of the general public is certainly the engine which will allow us to make progress on the issue of noise: the information of the public should therefore be reinforced at a local level, beyond noise maps. For instance, the issue of two-wheeled motor vehicles: they are responsible for a lot of noise at night, experienced as nuisances by residents, but the issue is not mentioned in the European directive. Local night noise monitoring networks would allow to show the variations of noise over a given period and to be able to discuss the issues from a practical point of view with local actors, including over a long-term period, by allowing us to illustrate the real evolutions on the issues taken into account.

Debate and exchange with the public

Pascal VALENTIN

I would like to make it clear for the European commission that Fanny Mietlicki's presentation is only on behalf of BruitParif, which is only one actor among others in the making of noise maps. The opinion of France is given by the Ministry rather than by a single association, and we have reservations on some of the topics covered, particularly the definition of an agglomeration or the definition of limit values. What the state has to say will be said by the state as regards the modes and the wishes concerning the implementation of the directive.

Anne PENNEAU, neighbourhood associative network « Living Paris »

I would like to give some warning signals on a number of problems on which our associations strongly feel. They are associations located in "festive neighbourhoods" where noise occurs at night and is very detrimental to health, while the attention was focused for years on the issue of road, railroad and air traffic. We must take into account this major health issue though, for the development of cities as well as for the conception we can have of a healthy economic competition between large cities in Europe. We notice that some districts are more and more devoted to single activities, and in some places the mono-activity of bars has been acted, although it is the presence of the local population that enables and makes this activity flourish.

There is a real time bomb in this issue, for residents are fed up and sometimes even have demonstrated against this

nuisance. We can no longer stand the fact that because of the focus on road traffic, officials in Brussels take no account of the issue of party noise, which could be considered in various ways. In France, the relevant legislation exists and is already well advanced, but it is nearly discarded today and it is not applied, and genuine partying areas are being created. The notion of quiet zones is particularly dangerous, because it will allow the states to pretend to be in accordance with European law after declaring as quiet zones areas which already didn't have any noise issues (such as green spaces for example), while the average noise will remain high in other places.

Marco PAVIOTTI

On a European level, it's difficult to include this, not only because it is explicitly excluded from the directive, but because of the subsidiary principle. It means that we are not going to set a rule which is better tackled at a local level, and it is a local issue. It may be, as it is for air quality, that some definition may be included, but the ruling for these will certainly remain on a local level. I would think that it is hardly possible that this could be considered in the directive.

Jean-Michel DELACOMPTEE, author of Small praise of silence lovers

You have quite a remarkable discourse of dynamism and initiative, but I'm scared when I listen to you. I have the feeling that we won't make it, that in twenty years the situation will be even worse. In my opinion, the political approach, on a European and national level, is not enough taken into account: what does it mean, suffering from noise? Beyond the inconvenience for people, we do not really know why we must fight more against noise.

It is not the work of the European Commission or Bruitparif which I question, but I am quite struck by the fact that we segment the issue so much: traffic noise is addressed, but not the noise from café terraces or road maintenance, as if it was considered as something entirely normal. Noise and economic development are related, though, and it is surprising that there are not more meetings with industrials. Nothing is done for example on the issue of grass mowers. And yet I don't think that being upset by noise is something normal.

In a report published in July last year, a recommendation suggested to launch an awareness campaign on noise on a national level. Why wasn't it implemented? There are actions on health or on air quality. So why not on noise?

Pascal VALENTIN

There are regulations on grass mowers, but we don't know them all. A European regulation is even being written on the reduction of the noise contribution of the equipment. The equipment that we'll be using tomorrow is already on the table, and the ones we are thinking about will be there in 10 to 20 years. The report that you are referring to, probably the one made by Mr Bouillon and Meunier, will certainly have consequences soon. The members of the National Council on Noise will soon be renewed and one of these personalities might be called to chair the organization.

Miriam WEBER

I do underline that there are many more problems at the local level than can be addressed by the END or any other European legislation. I confirm what Marc PAVIOTTI just said, it's a question about subsidiarity. Many issues can be solved at a national or local level, for example regarding the cafés and the bars or outdoor events. In the Netherlands, we do have a national legislation on that, which is implemented and enforced at a local level, which means that you are ready to have your civil servants in place, your police available and equipped with measurements tools... We really have to look for this multi-level approach, we need to combine and align on all governmental levels.

Colin NUGENT

I do agree that neighbourhood noise and entertainment noise is an issue, but I think it cannot be contained within the scope of the END at the moment. But long term average annoyance and sleep disturbance indicators would

not be greatly influenced by such sources. But nevertheless, if you were to look at statistics from within members states, you would find that what people complain about to local authorities is not road traffic or railway traffic, it's entertainment premises and even barking dogs.

As an independent agency, I would say that there is scope for lobbying Europe for extra control on these issues.

Henk WOLFERT

2 years ago we did an inventory on large outdoor events, on approaches made in the member states. Maybe it can be helpful to make the approach of entertainment noise workable. Next year, we have a plan to carry out an inventory on construction noise in our cities.

Presentation of policies against noise within large European cities

City of Paris, M. René Dutrey, deputy mayor in charge of the environment

Noise in Paris is the first nuisance Parisians complain about. It is a major health issue, for noise induces stress, lack of sleep, concentration and learning problems. However, the relationship between the cause and its consequences is less straightforward than for other public health issues such as pollution. There is no index allowing us today to realize how serious the issue is, which limits awareness. The exposure of Paris inhabitants to noise is still a major concern: 74% of dwellings, education and health buildings are exposed to noise levels over 68 decibels, and 35% of the population in Paris is directly exposed to levels which are much too high. The Observatory of noise, set up in 1979, has allowed us to draw a strategic map of noise in 2004, updated in 2007, then in 2012 on the occasion of a noise prevention plan. The first plan of action against noise dates back to 2006, with an action on the public policies of the city: waste disposal trucks, buses, noise in school canteens, street washing...

The adoption in March 2013 of an environmental noise prevention plan will mark a new stage, allowing us to amplify and diversify the number of actions. This plan determines quiet zones, a notion that we have tried to make as efficient as we could, by avoiding to choose already quiet places: the idea is rather to choose 80 sectors, which are not to be enshrined in terms of urban equipment and planning but in terms of noise only, and this according to 4 criteria:

-average daily exposition to road and railroad noise below 55 decibels

-easy access by the general public

- absence of any major counter-indications likely to adversely affect the pleasantness of the site

-favourable feeling and willingness of the population on these remarkable spaces.

It was initially planned to delineate 2 to 3 sectors in each district, but in the end, no less than 80 areas were finally delineated over Paris

The city of Paris leads specific actions on night noise, by taking up in particular the operation « clowns of the night » created in Barcelona. Of course, there are many difficulties to make night entertainment economic activities co-exist with residents who are of course entitled to sleep and quiet. Some areas which originally were rather quiet have become areas of high nightlife density. As an elected official, I have happened to meet people who had moved to an area because of its neighbourhood life and its festivities, but who are the first ones to sign petitions to ask for the closing of a bar just down their flat.

A balance remains to be found between the right to a quiet night and maintaining an economic nightlife. There is no silent city, but a pleasant life for all should be made possible

The current topic about noise in Paris is first the ring road : 100 000 nearby residents, among whom 40 000 people exposed to levels between 48 decibels and 120 decibels, that is to say a daily living hell, which I experienced for myself when I was young. 27 anti-noise screens have been set up along the ring road, 19% of the inner ring and 22% of the outer ring are covered with heavy anti-noise structures.

Thanks to the diagnosis and the survey made by Bruitparif, we have been able to make people aware of the extreme nuisance caused by life near the ring road for nearby residents: besides the infernal noise nuisances and the exposure to very high air pollution, it means social inequality, for the people living closest to the ring road are the poorest ones. After a long battle of several years, the speed has at last been reduced to 70 km per hour while new road surfaces are being tested at the Porte de Vincennes. The combination of both measures, added to other measures to come like the prohibition of the transit of lorries on the ring road, will enable to decrease the number of people exposed to noise from 40000 to 15000. Studies will soon be led on the opportunity of light coverings of the ring road, with the possibility of displaying photovoltaic structures on the surface. The next plan of prevention of noise in the environment will be initiated in 2018, and I hope that at that moment the speed limit on the ring road will have decreased further, for it is a measure of good sense, for a limited cost, and with direct consequences for nearby residents.

The great difficulty in Paris is that we don't have power over large roads, and so each measure is subject to year-long lobbying and on power-play. We do not have sufficient leeway to implement all the actions we wish for. We have to convince at the level of the local authority, and then to see each person who has a bit of power over the issue to achieve our goals. For instance, in order to decrease the speed limit on the ring road to 70 km/h, we had to struggle for five years.

Agglomeration of Barcelona, Ms Laura Zapata, in charge of the action plan against noise.

First of all, I would like to introduce you to a background of the city of Barcelona. It's a complex city in terms of acoustic quality, its extension is not very huge, there are more than 1.5 million inhabitants, and we have to take into consideration its metropolitan dimension, with 5 million inhabitants, which is a really high demographic density.

Mobility is another key factor: more than 5 million internal journeys in a working day in Barcelona, the city is also a major city destination, which is directly related to the intensive use of the street and the wide offer of leisure activities at night, with a very good weather and the coexistence of very different users in one single street.

Regarding the noise sources, the traffic noise is the main source, by cars and motorcycles, however in Barcelona like in many other cities, citizens' perception is different, and the main sources of complaints are leisure activities and musical activities in the street.

We have to find some kind of balance between these noise sources and the demands of citizen for quietness. Measures taken in Barcelona can be summarized in three strategies:

diagnosis, control and prevention, framework programs (action plan).

The action plan has a ten-year period of implementation, but we have a plan to update it in 2013, considering the results of the new strategic map. The action plan follows the objectives of the END, focused mainly on the areas of mobility, planning, services and activities. It includes the possibility of making specific plans aimed reducing specific problems in concrete zones of the city. The action plan consists of 5 strategic lines:

1. **Improving the acoustic quality of urban space:** mobility models, plans to update the action plan in 2013 according to a new mobility plan, control of ambulance sirens and road works, and so on.

2. **Encouraging the incorporation of acoustic criteria in the design and management of the city:** next year the priority is going to be the promotion of insulation in schools.

3. **Improving acoustic criteria into municipal services management:** improving communication between citizens and the City Council, working hard about training of the inspectors of the City Council.

4. **Encouraging citizen involvement in noise pollution issues:** not only the school community but also adults, with a campaign to reduce night time noise and another to reduce noise from motorcycles, involving measurements of the vehicles.

5. **Monitoring and assessing the city's acoustic quality:** We have integrated systems to monitor noise but the priority for 2013 is to monitor noise pollution related to night-time noise, music and crowd concentration. We are testing the use of sensors, and the mandatory installation of noise limiters in leisure activities, in concerts and in the street.

Several elements must be taken into account in the action plan: the control, information and coordination involving all the stakeholders, focusing on the priority sources, working in sensitive areas, taking advantage of new regulations and improving control organisms, improving the coordination of the municipal agents and of the City Council as a referent and to have acoustic information.

We have different workshops with associations in the neighbourhood, in order to understand their local problems, and all of this work is translated in the city campaigns.

Agglomeration of Rotterdam, Ms Miriam Weber, Director of the Noise service of the environment agency (DCMR)

As mentioned in the earlier session on the future of the EU Environmental Noise Directive many cities, Rotterdam, being part of an agglomeration, had to implement new tasks regarding strategic noise mapping and action planning over the last years.

Despite the decades of experience in assessing noise exposure in spatial and infrastructural planning, these EU requirements were rather new and challenging. We can see this adoption of new ways of working and integration of existing practices for example in the contents of the action plans.

The pillars defined in the Rotterdam action plan of 2008 illustrate this mixture of old and new practices nicely. Traditional noise policy approaches that are still adhered to are prevention of noise problems via integration of noise policy in spatial planning decisions and, secondly, insulation of dwellings with highest noise exposure levels. New is the focus on low noise road surfaces as noise abatement measure for areas where noise exposure levels are above the threshold that has been defined according to the END. And finally, similar to other European cities, we see a shift in paradigm from the traditional noise abatement approach to preservation of good acoustic quality areas and soundscape approaches.

Although thresholds of 68 dB Lden for the city centre and 65 dB Lden for the other areas had been set, and hot spots and possible measures were defined, the Rotterdam noise action plan 2008 was more a first sketch than a SMART work program to be implemented during the following years. This line is continued in the so-called Rotterdam Approach for Noise policy of 2009, restating the pillar approach of the noise action plan. In addition, attention and action is proposed regarding noise sources that are known for causing high percentages of noise annoyance but not being part of the END, such as scooters, outdoor events, cafes and bars and construction noise.

The strategic noise maps this year showed the limited success achieved during the last three years. The explanatory reasons are several, as I mentioned earlier this morning, such as the new dwellings that were recently built and the cuts in the road maintenance budgets. The evaluation of the first noise action plan revealed as well that the linkage between the road maintenance program of the Rotterdam infrastructure department and the noise action plan was weak or even missing. Although the noise map and noise action plan defined the roads where noise emission levels were above the threshold limit and noise abatement measures were needed, these roads were not considered in the road maintenance program. The latter is purely based upon the traditional way of working; depending upon the age and the technical quality of the existing road surface roads were selected for maintenance work. Without specific checks regarding selecting specific lower noise types of road surfaces. A missed opportunity in our opinion; and fortunately in the opinion of our colleagues of the road department.

Taking all these considerations and lessons learned into account, the noise action plan 2013-2018 will again be based upon the pillars of prevention, insulation, low-noise road surfaces, addressing noise annoyance and preserving areas with good acoustic environments. In practice though some current practices have to be changed or strengthened such as the integration of noise in spatial planning, the selection of roads for lower noise pavements based upon cost-effectiveness criteria aligned with noise policy, and the identification of quiet urban areas. In addition, other policy instruments are needed in order to attain the noise and environmental goals set in Rotterdam. Examples are the development of low noise pavements that are specifically suitable for municipal traffic, research into the implementation of environmental zones including noise limits, stimulation of e-vehicles and e-scooters, and a strong lobby in Brussels for more stringent noise source policy.

The question might arise whether the END has led to any change or success. When considering the effects in terms of reduction of noise exposure and increase of quality of life and health, the answer might be fairly negative. But, on the other hand, the END has certainly positive side effects on a societal and political level in gaining far more attention for noise pollution and environmental health than we had for many years or even decades.

Rotterdam's alderman Mrs Alexandra van Huffelen was the first local politician in many years who set really ambitious policy targets, in that by the end of 2013 15 000 citizens of Rotterdam will have 3 dB lower noise levels within their houses. That we will need all our efforts, creativity and persistence in order to attain this goal is evident; but at least firm political power and vision is in place in contrast to many other governmental tiers in many European member states.

Challenges that we have to address in multi-level governance approaches. The local administrative level is not able to solve the problem by itself and needs the national and European governments aligning their activities and responsibilities.

An interesting recent example concerns the national government in the person of the Minister of Infrastructure and Environment. One of her political ambitions is to increase the speed at highways from 80 km/h to 100 km/h around cities and from 120 km/h to 130 km/h. We all know the effects in terms of an increase of air pollution and noise levels, and thus a negative effect on public health. On the other hand, this minister is investing in a noise barrier along Rotterdam and consequently helping the local politician in realizing the noise policy target as this barrier will reduce noise levels by 3 dB for approximately 3 000 inhabitants. Note this is 20% of the number of citizens that was defined in the target.

You will probably now have got some idea of the discussions and negotiations we prepare for high political meetings.

Agglomeration of Brussels capital, Marie POUPÉ, Head of the Service Noise Plan of Brussels environment

Noise remains a major concern for the population, immediately after air quality, and before waste disposal. Over a half of the population of Brussels says they are unsatisfied with their sound environment, and one fifth find their place of residence too noisy (it is one of the first causes for removal). Traffic noise is the first cause of the annoyance felt. In Brussels, a service of Environment Police receives and deals with complaints. Over 60 % of complaints concern noise and the first source of noise is the heating, ventilation and conditioning installations, then come music and people behaviour. The sectors of activity concerned are mainly the HORECA and leisure, but also households and shops. The service receives between 10 and 20 complaints a year related to terrestrial transportations.

The Brussels area extends only over 162 km2 and regroups 19 towns among which the city of Brussels, for one million inhabitants and about 2000 economic activities, 400 000 commuters travel there every day. The airport, although it is located on the territory of the region, 11km away from the city centre, is managed by the general state and is in Flemish territory. The mapping of the region shows that road traffic is the greatest source of noise. 42% of the population is submitted to levels over 45 decibels night and day. All transport sources put together, no less than 63 % of the population is concerned.

In 1997, the region Brussels Capital took its first ordinance on noise, which already forecast noise mapping and planning, as well as a whole series of decisions on specific noises (airplane noise in particular). A first action plan was adopted in 2000 as well as the first noise maps. The European directive of 2002 was transposed into the regional law by 2004 ordinance. In 2009, the noise maps were published as well as a new prevention plan, for which the mid-course assessment is taking place in 2012.

The strategy consists in fighting noise by targets, and we apply the hierarchy of the action principles: first reducing noise at source, then at propagation, and last, insulation. Insulation really intervenes as a last resort, because we think that people must be able to live with open windows and in all their outdoor life spaces. We try to integrate noise management in all sectors: mobility, urban and space planning, building (dwellings and tertiary sector), and so on.

The prevention plans includes 10 axes and unfolds 44 prescriptions. It consists in an actualization of the noise map, a harmonization-definition of new indicators, the development of the network of measurement stations, published surveys made available via the Internet, the taking into account of noise as early as in the building stage of urban projects, the integration of quiet zones, the main one being the Soignes forest, for it corresponds both to sound criteria, but also to criteria defined within popular consultation. 25 zones have been identified where no quiet zones can be found and where people don't live in quiet, and they obviously are priority action zones. Public transports are subject to conventions with infrastructure managers, with reference values that must be respected. An access fee is being considered for road transportation, and simulations have shown that a 61% decrease of noise was possible with a very voluntarist policy. Roads are now considered from the point of view of their environmental capacity and a pleasant living environment is to be preserved all along the roads.

A common portal monitoring, observing and dealing with complaints is being elaborated, so as to help citizens who usually do not know who to turn to in order to signal noise nuisances. Leaflets and campaigns are made, particularly in schools, as well as measurements in noisy premises, followed by improvement proposals.

Conjunctural noise and the isolation of buildings are subject to adapted regulation and new technologies are encouraged (clean vehicles, integration of noise to ecological building).

The great challenge for the years to come will be demographic pressure, on a relatively limited territory where building plots will have to be found, near noisy activities.

The agglomeration of Vienna, Johannes POSH, PlanSinn, City of Vienna

Agglomeration of Vienna, Johannes POSH, PlanSinn, city of Vienna

Vienna is a province, a municipality, and it has 23 districts, with 1.73 million inhabitants.

The noise action planning process in Vienna focuses on information, stakeholder cooperation, public dialogue and coproduction. In the coalition agreement of the socialist and the green party in Vienna, an increased public involvement in the process is demanded, which is aimed at by the following project components.

The noise maps of 2007 and 2012 are not comparable, partly because of more precise data, partly as a matter of changed methods of calculation. This also makes for a negative impact on noise emission at lower traffic speed. Both facts are neither understandable nor smart to communicate. The mandatory noise maps are not aiming at public communication.

That's why for stakeholder dialogue, we have designed two aggregated noise maps which show traffic, tram, and rail noise for 24 hours (day evening night) and during the night. In addition, we gave them a more intuitive colour system. The aggregated noise figures are precise and near the individual noise perception, which has been proved by many individual measurements. This map in fact shows a main aspect of our approach to the noise action planning process – the individual perception of noise. It is the key factor for interest and understanding and a precondition for people to contribute to noise reducing solutions.

The main information medium is LOIS (online noise information system) which at the moment is updated and will provide user-focused information concerning all kinds of noise. The noise action plan will be integrated not as a static document but as an on-going process tool which is monitored and will show targets, planned measures as well as successful measures. So it will be updated periodically, not only every five years. LOIS will also contain dialogue features and participation offers on certain topics, regions or cases.

The dialogue with the public has started with a series of interviews with all 23 district mayors of Vienna. They know all the main noise problems in their district area and have a good estimation of recent successes or promising new noise reduction cases. Last but not least they are important proponents in dialogues and cooperation with residents and noise stakeholders. This Vienna-wide screening is one important and vivid basis for a number of cooperative noise reduction actions.

The other base is the expert (Fachexperte) planning process for the noise action plan, which is developed together with traffic planning experts and mobility stakeholders such as public transport enterprises. The cooperation between planning experts and environment experts works out well. This time the noise action plan is to be finished earlier than the traffic master plan, which is quite a challenge.

Noise reducing actions have already been started, also inspired or accelerated by the various talks and workshops. In 2013, a number of 3 to 5 participatory noise reduction projects will be started. The whole range of public participation intensity (information, cooperation, and coproduction) is possible. It just depends on the cases, the involved stakeholders and the scope of the action.

Vienna relies on good practice on those processes, made by a pilot project named SYLVIE which focussed on big city noise as a social issue. Technical solutions for noise reduction are often expensive and rarely have the success they should have. As a result, most of the people do not feel any improvement at all. This is quite obviously a social issue which needs to be tackled and solved with the participation of the residents affected.

In order to enhance the possibility to ensure public participation to set up cooperative planning processes, the first thing to do is to have local politicians and authorities to want that, in order to have a possibility to succeed. Then it's not so difficult to approach the public. But we thought it wouldn't be a good idea to approach to the public first, then to raise the problems, then to try to solve the problems together, while politicians didn't want to deal with these topics. That's the reason why we put it the other way round. I think we will end with public participation and public information in the end, but in some regions of Austria it's not possible yet.

A few years ago, the project SYLVIE mediated between offenders and victims, i.e. between those who cause and those who suffer noise. The two sides have joined teams to find solutions for certain noise problems in relation to shops, traffic, neighbourhood businesses and leisure time activities.

One of the pilot projects was a noise protection wall which was a turnout of a participatory planning process with stakeholders and inhabitants of a big social housing area along the main road "Gürtel". It combines technical noise reduction with photovoltaics and has changed the public space and living quality completely. Luckily at that time Vienna was able to finance this building. Since then residents have been able to perceive noise from the neighbourhood...

Debate and questions from the audience

Marco PAULOTTI

Many times I think, we're missing what we want with an action plan. My understanding, confirmed when I read the reports sent to the Commission, is that the actions are triggered more by "what kind we do?" rather than by "what do we want to achieve?". I'm really wondering if, in the action plan presented by Johannes POSH, the question of the objective is really asked. I rarely see it clearly addressed. The directive is clear: the population has to be actively involved in the decisions, and we will be very serious, in the reports sent to the Commission, that it is really done. I'm afraid that few action plans will not be accepted because they were not discussed with the people.

Marc PROCHASSON, policy officer on Sustainable Development, 20th district of Paris

Involving inhabitants in noise complaints is important, but I see in my district in Paris, the 20th, where about 4000 people live less than 50 meters away from the ring road, that we never receive complaints from them about noise. There is a sense of fatality about traffic noise, and therefore much sociological work to be done to link complaints and observations of noise nuisances.

Woman in the audience

As regards Brussels, the noise mapping has allowed delineating more or less noisy areas, that is to say to fight noise where it is. But M. Dutrey told us that Paris was rather focusing on determining quiet zones. In one case, the issue of noise is addressed where there is noise, and in the other case a specific importance is given to already quiet zones, to protect them even more.

René DUTREY

Determining quiet zones is a legal framework imposed on the City of Paris. There are then two ways of handling things : either designating the Bois de Boulogne or the Bois de Vincennes as quiet zones and leave it at that, or making the choice of determining no less than 80 areas declared as quiet zones and on which monitoring is done so as to guarantee that they will remain quiet. The problematic zones of noise in Paris are known: railroad infrastructures, road networks, night-time life areas... The 23 actions of the plan use all possible public tools to try to decrease the level of noise nuisance to an acceptable level.

Marie POUPÉ

Allow me to specify that in Brussels, there are areas which have a potential of quiet but are not. The European directive explicitly requires us to identify quiet areas and to protect them, as is the case for the forest of Soignes. But we have also identified areas with a potential for quietness, but are not quiet. They are areas which answer all the criteria identified via the public consultation, and we designate them as areas "with acoustic comfort to be improved". There also are noisy areas, not only because of road or railroad infrastructures, but also because the neighbourhood has a high density of functions.

Presentation of the network Eurocities and of the current European projects, by Henk Wolfert, president of the Working Group Noise within the Eurocities network.

Eurocities was founded in 1986 and is representing cities of over 250 000 inhabitants, with some 133 full members in 34 countries, representing 120 million citizens. Most European capital cities are members. Eurocities maintain a lot of forums: Culture, Economic Development, Environment, Knowledge Society, Mobility and Social Affairs. Noise is not a stand-alone forum because there are a lot of interactions with other topics. The Environment forum contains, amidst other topics, the Noise working group.

Among the activities of the Noise working group are meetings, conferences and symposiums, the Green Paper on Urban Transport, consultations and round table meetings, positions paper (END and vehicle noises), the release of leaflets, reports and studies, presentations and articles, participation in projects and networks, and supporting and/or influencing the European Commission, the European Parliament, the Committee of the Regions.

The Noise working group participates in three types of projects: projects to be followed which are invited to present their action in the working group, projects that we are supporting by letters of support, and projects with participation from the working group itself.

Eurocities has a fee based support for applications by its members and is sending calls for partners for local projects regarding environment or noise, calls for proposals (life, FP7, etc.).

Among the projects supported by the Noise working group are:

The HUSH Project: H.U.S.H. (Harmonization of Urban noise reduction Strategies for Homogeneous action plans), which will last 3 years, has the general goal to contribute to the harmonization of the national laws with the European ones for the noise management contained in directive 49/2002, starting from the realization of a study and an intervention in the city of Florence, considered as a pilot case.

NADIA Project: New Automotive components Designed for and manufactured by Intelligent processing of light Alloys. NADIA will exploit the potential of light multifunctional alloys for car and truck components and systems through advances in nano & micro technologies. The project aims at producing light alloys cast component prototypes for the EU transport industry, as proof-of-concept of the intelligent processing strategy and to integrate new simultaneous nano-technology based design tools within production and engineering processes.

The QUADMAP Project: The acronym QUADMAP stands for QUiet Areas Definition and Management in Action Plans. The project aims at delivering a method and guidelines regarding identification, delineation, characterization, improvement and managing Quiet Areas in urban areas as meant in the Environmental Noise Directive 2002/49/EC. The project will also help understand the definition of a Quiet Urban Area, the meaning and the added value for the city and their citizens in terms of health, social safety and lowering stress levels in men.

Round Table « Examples of good practices »

Policy of improvement of dwellings in Stockholm, Magnus Lindquist, City of Stockholm

The work against noise must be done in different ways: protective actions, regulations, planning process and reduced noise at source. Our work in Stockholm has been concentrated to protective actions and design and location of housing. Our goal is to reduce traffic noise indoors for all those people that are most exposed to it. I will give two examples from our work:

Improved window insulation (protective action): We have been working a lot to improve window insulation. The goal is to reduce noise indoors for those most exposed. The definition of "most exposed" is more than 65 dBA equivalent level for a 24 hour period outside. The work started in the late 1970´s. Since 1997 the process was improved due to more money from the city. Today only about 10 000 people remain, in the beginning it was around 75 000 inhabitants in need for better windows.

There are several reasons for success in this work. In the beginning it's important to have a detailed noise map and an action plan where are described and prioritized the streets with the most noise. We have a government grant that covers some part of the cost for the needed work in the houses. And of course it's necessary to give information for the house owners and a continuous follow-up and documentation and description to the politicians every year, in order to explain where the money is going.

Sound quality score (planning process): The building development structure is changing with more people living in urban areas. New dwellings are built in central areas and are often exposed to traffic noise and noise from other various activities. The goal for the city in coming years is to build 5 000 new dwellings a year. To build these new buildings, we started out a project called Traffic Noise and Planning, started back in 1999 as cooperation between the city and the region. Until now we have published 4 reports. The overall conclusion about the design of the buildings is that it is possible to compensate for negative impacts from noise with good acoustic solutions. One basic solution is the need for a quiet side.

We think that it is possible to build dwellings with a good acoustic standard even in noisy city areas. For that reason we have developed a method called Sound quality score. The method is based on weighting different factors that affect the sound quality. Factors that increase the quality gives higher score, for example many rooms facing the quiet side of the building. Exposure to several sources of noise or single sided apartments gives a lower score.

Evaluation of the impact of the car-free day in Brussels, M. Jean-Laurent Simons, IBGE Brussels

The Car-free day is organized once a year in Brussels. Its effect can be assessed directly from the website WebNoise, which shows the activity of 17 measurement stations spread over Brussels. The first function of these stations consisted in measuring the airport and air traffic noise over the city, and they helped to calibrate the maps of acoustic calculation for the noise maps required by the European directive.

The Webnoise site therefore allows us to see the noise level difference between a normal day in Brussels and a car-free day. The interface allows us to select the measures according to a date and according to the measurement stations. For stations specific to road traffic noise, we can see that a car free day induces a change from 54.1 to 47.7 dB(A) for one station, for another one from 61.3 to 50.4 dB(A) (a station located near an important road), or from 47.4 to 43.8 (a road with heavy traffic in the town centre), or from 68.3 to 43.4 (a station in the immediate vicinity of the highway to Brussels)

The car-free day has been organised in Brussels for 10 years, and now the 19 township that make up the region participate in it. It is highly popular with residents who do not hesitate to use bikes in large numbers. Only public tranportations and taxis are allowed to drive during these days.

The returns of residents are very positive, including from the main HORECA sectors, for people go out more than when they are in their cars, they more often have the occasion to walk in the street and to frequent the shops. There have recently been demands to have car-free Sundays on some great road axes in Brussels in the summer time, apart from the car free day. But the project has only been moderately supported for it involves mobility issues, in particular for the circulation of people who want to use their car on that day.

National policy against railroad noise, Ms Nina MALHER, BAFU, Switzerland

In the year 2000, 265 000 people were affected by harmful or annoying railway noise in Switzerland. 89% of this people lived in cities or urban agglomerations. A new Federal Act on Railways Noise Abatement was adopted in 2000 to reduce this number to one third until 2015. This action plan consists of improving the rolling stock, constructing noise barriers and if this is not sufficient, also installing noise insulation windows. The propagation of noise is reduced by noise barriers, but noise barriers are locally barely effective and are quite expensive, with an effect on the landscape. The action plan cost CHF 1.8 million (€1.5 million). The regulation was mainly financed by taxes on the road sectors (heavy vehicles fee and fuel taxes).

The noise abatement project was included in a bigger public transport project supporting regulation. After 2015 the planned measures will concentrate more on the noise source. The focus will be on economic incentives and the promotion of technological innovation of the rolling stock and the infrastructure. But the goal of reducing the number of affected people to two thirds will probably not be reached, so we have to think about further measures. The focus will be on economic incentives and the promotion of technological innovation in infrastructures and rolling stock.

Even after the remediation of the rolling stock, half of the fret cars which translate to Switzerland would still roll with loud braking systems. This causes an external cost of several million CHF. We are thinking about introducing a complete ban of fret cars which are rolling with loud braking systems, after 2020.

Measuring the acoustic atmosphere in downtown Oss, M. Loek VAN LAARHOVEN, Oss

I'm an acoustic adviser for the city of Oss in Holland, a city of 85 000 inhabitants. I've been working there for 32 years now.

In our vision, the purpose of effective noise management is to reach an acceptable acoustic climate in urban space. In this situation, the dynamic character of the city shows a balance between working, shopping, recreation and living. "A pleasant city to live" is the base of the Laarhoven index, which appears to be a good instrument for measuring the disturbance of this acceptable acoustic climate for inhabitants of a city. For the first time, physical and psychoacoustic parameters are blended in a real-time monitoring. A continuous cumulating of sounds, from traffic, human voices, events, music, is possible, thus allowing a better insight in the relation between complaints and their historic causes. There's a suitability to set up future examples by means of simulation.

The score of the Laarhoven index is scaled from 0 to 50, and is distributed in time for the period that is desired (a week, a week-end, all the events of the year). 0 is an ideal situation and 50 stands for "unacceptable". The first results are a better insight on effects of railway traffic in downtown city of Oss. There is a proposal to close a part of the inner city during the evening and night. We also can manage noisy events in outdoor festivals in the city centre by better noise management. There is a permission of the community of Oss to increase the sound level in some states from 50 to 60 dB(A).

Protecting school yards from noise and urban renovation, Raffaella BELLOMINI, Florence, HUSH project

Florence is a city of about 350 000 inhabitants, with an historical centre enclosed by a boundary wall, characterized by a very strong local traffic, also determined by the absence of a ring road outside the city. The administration of Florence is very sensitive to noise problems.

The City of Florence has recently started to address the problem of noise, according to an integrated approach with other environmental problems. In particular, between the first and second round of noise mapping according to EU Noise Directive 2002/49/CE, an important transformation policy of road and traffic system has been carried out. The introduction of a big quiet pedestrian area covering most of the historical centre, as well as low speed zones in some neighbourhoods and the strengthening of public transport by means of a new tramway, has been produced.

The City of Florence, with the technical support of the company Vie En.Ro.Se. Ingegneria, is also involved as coordinating beneficiary or partner in European projects on environmental noise, including the LIFE+ 2008 / 386 HUSH. Among particular HUSH project's objectives, one is to define a new development system (procedures and database) for action planning and test it in two pilot cases, in the city of Florence.

The most innovative and interesting aspect of the HUSH project is its approach for the determination of noise reduction interventions. The methodology used for the design of noise reduction interventions in the two pilot cases was based on both quantitative data ("traditional" acoustic measurements) and on qualitative data (non acoustic data), such as annoyance perception, suggestions and proposals, in terms of desirable actions, expressed by stakeholders who have been involved in the earlier stages of the project.

Among the interventions carried out in two critical areas selected by the city of Florence, are the external area of "Don Minzoni" primary School (1 000 students) and the Brozzi-Quaracchi urban area.

The "Don Minzoni" primary School hosts more than 1 000 students and one of its problems was that the garden in front of the school was never used, because of the surrounding noise. The Brozzi-Quaracchi is an area in the northwest of Florence, where sound annoyances are mainly caused by the road traffic in the internal streets. We decided to involve citizens in order to decide what to do in these areas. Besides the traditional noise measurements, we carried up some surveys with the stakeholders, asking them what they wanted to see improved, what was their perception of the area. A popular assembly gathered more than 200 people; we distributed more than 200 questionnaires and interviews.

In the case of the school, people asked for an amphitheatre for open air lessons, flower beds and more playgrounds. We finally had the possibility to provide it. In the Brozzi-Quaracchi area, 65% of the people asked for road condition variations and 30% asked for the introduction of a low speed noise zone. In this case we had some problems matching the different requirements of the department of the municipality involved in these interventions but we hope that in the next two weeks the intervention will start, with a complete reorganization of the traffic and the introduction of a low speed zone.

Traffic limitations in a town centre, M. Gaetano LICITRA, Lucca, Tuscany region.

Why do we have only 50% of the action plans issued in Europe? Maybe one of the main reasons is the economic crisis, but maybe action plan don't always mean spending more money, it could be a question of a better organization of the city and its traffic. We don't noise in our agenda with politicians, because there are other topics closer to the people and to the politicians, like air pollution and health.

That said, our role is to underline why we have to spend money on noise and what can be achieved in order to reduce the noise, and what will be the results?

We now have the strength to show that we have health problems with noise too. There are a lot of different studies that show that there is a risk for health, and that inaction could cost more than action.

In Vitoria, they are working on a modal shift to change the structure of the city and use the notion of "superblocks", a system to create quiet zones where it would be possible to use bicycles and have quiet walks. The people participated in and appreciated this plan, and Vitoria Gasteiz became a Green European Capital of Europe.

What is the goal of an action plan? Reducing the number of the people that live at a very high noise level or working at generally reducing noise in the city? I think it's more effective to work on the city in general than on the high spots only, because in terms of annoyance, the number of people who live above 60 Db(A) is so high that it's better to work on a general overview.

Lucca is a city completely rounded by walls, as many other cities in Europe. The big and heavy vehicles have difficulties inside the city but they have to deliver what they bring with them. The municipality managed to set up a centre in which all the goods could be transferred via electric cars. This represents now 26 000 deliveries, for more

than 155 000 deliveries in all each year. But we are not on the agenda of the municipal policy, because we have to look for something that really interests the politicians and we have to try to find the connections with other points: logistics, air pollution, organizing the city, flow traffic... Noise must be an internal point of these topics instead of an external point, in order to obtain more attention.

The idea of the electric car is the future: in the next ten years we won't need many things that we are working with today because cars will change. Using new electric cars will dramatically reduce the overall noise of the cities.

Impact of vegetal solutions, M. Dick BOTTELDOOREN, Gent University, Hosanna and Qside projects

Although noise has been a point of concern in many cities, the sonic environment is only seldom part of urban design and planning. Careful design is nevertheless the most efficient way to mitigate unwanted sound and promote positive overall assessment of the neighbourhood soundscape.

This is particularly the case when it comes to using green and natural materials. Increasing the amount of greenery in the city has many advantages such as promoting bio-diversity, providing space for restoration, improving water management, local climate, and air pollution, etc.

Noise reduction and soundscape improvement is an added benefit that could come at limited additional cost when designed carefully. In the HOSANNA project, it was found that the choice of substrate for green roofs, green facades and small vegetated barriers, tree planting schemes in open space, ground roughening, terrain modifications and berms, etc. could indeed create this benefit.

This "green" noise control is characterized by rather small A-weighted noise level reduction for every individual measure on itself, but it could result in a significant overall improvement. The visual aspect and the addition of natural sounds help in increasing the perceived effect.

Of particular interest is the planning and preservation of tranquil space in urban area. This is often created by shielding them from noise sources using buildings. Sound reaches these shielded areas by multiple reflection and diffraction through openings between rows of buildings or over the roof. Green walls and roofs – their substrate in particular – can significantly damp these propagation paths.

Debate and interventions from the audience

Speaker from the audience

About the presentation of M. BOTTELDOOREN, are the results announced in terms of decibels, but also in terms of acoustic perception? And if so, how was the latter assessed?

Dick BOTTELDOOREN

There are two types of studies: studies on local situations so that people can actually see the environmental environment, and other studies where the noise is recorded and added to the noise map. We look at the sounds people actually hear: mechanical noises, cars, people's voices, natural sounds. When you introduce greenery to the landscape, people tend to hear mainly other people's voices and natural sounds. So even with a reduction of just few decibels, other sounds come out, that are normally overlooked by the people. There may be an effect of green material on people, studies have shown that people tend to behave differently if the soil climate changes. But if the sound is very high, as with big road traffic, putting some trees along the road won't help at all, actually people will perceive more of this sound, because they won't see its source anymore, and they will feel more annoyed by this noise level.

Jean-Laurent SIMONS

About the effect of green on the perception of noise, I confess that I am quite surprised by M. Botteldooren's presentation. In Brussels we tell people that vegetalization has a very limited effect on the propagation of noise. For

instance, we noted a difference of only one to 2 dB before and after cutting trees near a railroad, while the railroad traffic was equivalent.

Dick BOTTELDOOREN

I totally agree with that, we had some test cases where hedges and trees were cut: there was no more than a 1 db(A) effect, but the perception effect was bigger. If you cut something you still have the same ground effect on noise anyway, and everything you gain from green material has to do with the substrate on the ground.

Chris BLACHE

A question for Raffaella BELLOMINI : we are often told that we cannot involve the population because it takes a lot of time and we have to deliver solutions within a schedule. Can you tell us how long it took in your case to go on site and address this situation and talk to the people?

Raffaella BELLOMINI

It didn't take a long time because, in the case of the school, it was a punctual situation. We organized a moment to collect questionnaires and surveys to students and parents and teachers. In the case of the Brozzi-Quaracchi area, it took a longer time but we gathered a popular assembly, the first distribution of the questionnaires had been made in that occasion and then we asked to send back the questionnaires at a certain point. It was not so easy to collect a lot of data but I think that it can be considered as effective anyway.

Speaker from the audience

I have found the experiments on buildings and vegetal elements interesting, but how did you manage to combine this with energetic aspects? I think in particular of the orientation of buildings, which must be orientated in relation to the sun, and therefore with living rooms in the direction of noise sources

Marc PROCHASSON

As regards the energetic efficiency in buildings, it was demonstrated in Germany and also experimented in Paris, that a well-isolated building does not depend on the sun. Of course, it is nicer to have a sunny living room, but you can have energetic efficiency without solar gain.

Henk WOLFERT

A brief question to Miss MAHLER : regarding the railway charging, which has been introduced in Switzerland as well, I was wondering how much resistance you faced from the users of the tracks, as most of them are against this type of measures.

Nina MAHLER

We didn't implement a bonus-malus system but rather a simple bonus system: when you have silent brake system, you don't have to pay less.

Round table: identifying, characterizing and managing quiet zones

First results of the QUADMAP project and examples of the creation of quiet zones in Florence, Francesco BORCHI

Current practices about the selection, assessment and management of Quiet Areas in EU Countries, though regulated by the EU Directive 49/2002/CE on Environmental Noise, appear to be extremely fragmented and inhomogeneous. In fact, each country for the past years has adopted a set of strategies strictly related to their specific contexts.

Proposing a solution to overcome the lack of harmonized methodologies for Quiet Areas is the main aim of QUADMAP (QUiet Areas Definition and Management in Action Plans) project. QUADMAP is contributed and co-financed by the European Commission into the LIFE+2010 Financial Program.

The results of the project will facilitate urban planners to apply standard procedures for identification, delimitation and prioritization of UQAs. The project has a high level of demonstrativeness guaranteed by the fact that proposed methodology will be tested on a number of case study areas. In particular, it will be tested in a set of pilot cases in Italy, Spain, and in the Netherlands.

The project started on 1st of September 2011 and lasts three years. At the end of the first year of work, we have completed a "state-of-the-art" analysis, based on the biography analysis and stakeholders questionnaires among 9 member-states. We will propose a draft methodology, which is still under discussion. We expect to close the method and tools by January 2013. After this step, we expect to test the method via the Life+ program. The project has a high level of demonstrativeness, guaranteed by the fact that we test the technology in many case study areas in Italy, Spain and Netherlands. We expect the interventions for a budget of 655 000 €. The proposed method will be automatized according to the results carried out from the pilot areas.

In these areas we carried out many different approaches, from a political definition of a "quiet area" depending on the function of the area, to a definition based on the areas which are already quiet, according to the noise maps. Both approaches seem to be possible. The used approach can depend from many factors from local authorities politics to available sources to citizens' evaluation.

The added value of QUADMAP method, in the identification step, will consist to give the technical elements and tools according with the local administration, which will be able to define an area as a quiet one. Referring to the selection phase, we consider to use noise parameters coming out of noise mapping, but for the other phase, further assessment and management techniques, we plan to consider other acoustic parameters, as well as non-acoustic parameters like the accessibility of the area, safety and the end user perception.

Ms Igone Garcia, Tecnalia, City of Bilbao

The context of the QUADMAP LIFE + project, offers an opportunity to the city of Bilbao to transform urban public spaces into urban quiet areas, through the development of interventions.

To respond to this opportunity, an acoustical diagnosis of the pre-operational situation is needed. This analysis will allow identifying the acoustical challenges that must be satisfied with the intervention, so that the public space can meet the requirements for a quiet area.

Considering the Bilbao City Council objectives, these challenges must consider, beyond the reduction of noise (understood as a minimum threshold criterion), also the improvement of the quality of the sonic atmosphere and the interaction between sound dimension and other design variables of the space.

In the case of Bilbao, the department in contact with the QUADMAP project is the Public Infrastructures one. The project wants pilot cases in which we are going to do urban renewals or interventions. So we are going to select a potential quiet area with not good noise level but with some uses and functions that are congruent with definition of "quiet area".

The chosen area is the General Latorre Square, a rather small park with a lot of traffic all over. At the moment the area is not visually attractive. There is some greenery and some trees. The users want to change the area but are not interested in changing the uses of this space. During the participatory processes, citizens mentioned that they wanted a different design, but that they are interested in using it for resting, and social encounters.

Noise levels in the area are not very good, in fact they don't fulfil the threshold of 60 dB(A) that is fixed in the national legislation for quiet areas in Spain. So we will have to develop very normative action in this area to consider it as a quiet one, from the noise pollution point of view. Specific indicators have been used to consider soundscape approach and acoustic comfort. This indicator combines different aspects that are not only in connection with the intensity of sound but also to analyse which are the dominant sound sources, and if these sound sources are perceived as pleasant or unpleasant by citizens, and also considering the energy and the number of acoustic sources in the place.

The aim of this indicator is to have a classification of the area, knowing what kind of actions we have to implement in order to improve sound quality. If the result of the indicator is less than 5 then the area is highly polluted and we will first have to reduce this pollution. In a situation between 5 and 10, some other actions than just reducing noise are used in order to improve acoustic quality. In a situation above 10, the soundscape must be preserved because the sounds in the area are interesting and well perceived by the citizens.

For the General Latorre Square, a highly polluted area, we are just on the threshold of starting to implement actions that involve more things than just reducing noise. What the municipality has asked the architects to do is to define some sonic solutions to increase this number. This is quite a challenge for us, as we have to propose some actions, but we also have to say how these actions are going to move the indicator, and how is it going to contribute to the final comfort of the people in the area.

We used two different approaches to develop this task, a conservative one and an enabling one, opening up possibilities. We don't have restrictions to do that, and some of the issues are related with challenges that are in connection with reducing pollution that are not very innovative at all, and to act on sound propagation with the implementation of barriers and greenery. The second challenge is more in connection with a soundscape approach and acoustic comfort, like increasing the positive events that, according with people reports, are connected with children and natural sounds like water and winds.

Mr Kevin IBTATEN, Urban Ecology agency, Direction of Green spaces and the Environment, City of Paris

.

The Plan of Prevention of Environmental noise of Paris includes 23 action files, one of them concerning quiet zones. It proved necessary to define first the characteristics of quiet zones, a concept that may prove subjective.

A day of reflexion organized in collaboration with the Centre of Information and Documentation on Noise at the Town Hall on the 12th of February 2010 allowed us to review the approach and the methods used in other French and European capitals. It allowed us to specify that the acoustic criteria were not enough to determine quiet zones.

For Paris, the four following criteria were retained after a large concentrations with district town halls : an average daily acoustic exposure to road and railroad noise inferior to 55 dB(A) coupled to a noise level in relation with the rest of the neighbourhood, easy access of the public in terms of walking and opening hours , the absence of any major counter indication likely to detract from the pleasant character of the site, a positive feeling and a shared will to enhance a remarkable space. Homogeneous repartition over the territory of Paris has also been sought. The method used was based both on technique and cooperation. An absolute noise indicator was determined with the help of Bruitparif, the LDE (Level Day Evening), as well as a relative noise indicator, an average indicator that shows that a given area is quieter during the day than the rest of the neighbourhood. These two indicators lead to a combined indicator, and the sound data is reported on a map of public space in each district. The dialogue with the general public was organized via meetings of a working group on quiet areas, a thematic workshop to present the methodology to district officials, public meetings in the districts to gather the opinion of Parisians and submit them the maps. On that occasion, some of the pre-defined quiet zones were finally withdrawn from the list, for the population had pointed the presence of very noisy entertainment places, in spite of the obvious absence of traffic noise in these zones. The consultation went on online via a questionnaire online on the website of the city of Paris. Two books "Quiet in Paris" were published, taking these consultations into account.

For the period 2013-2018, the crossing of these criteria as well as visits and exchanges with district town halls have allowed us to draw a first list of 80 to 90 quiet zones (according to the way of counting large areas by district) of various sizes (from 373 square meters to 55 ha), each district having at least two. Their typology is the following one: green spaces open to the public (municipal, state, private or railway right-of-way no longer in use) , private or public spaces, 4 cemeteries and the two great Parisian woods. To be eligible, the area must be quieter than the rest of the neighbourhood, including if it is above 55 dB(A), it must offer positive criteria (furniture, 30km/h zone, pedestrian encounter zone, a particular landscape...) and must be exempt from negative criteria (squalor, insecurity, inaccessibility, festive noise, incivilities). The participation, will and validation of local elected officials are crucial: if the district town hall does not agree, the contemplated quiet zone cannot be kept.

Once the list is drawn, the municipality will have to preserve those spaces from an increase of transport noise, without enshrining them. This will consist for example in checking that they are taken into account in the impact surveys of urban planning projects, to enhance their quiet character in the feasibility studies of urban planning and conception of green public spaces, to mention their existence in the local urban plan PADD, to follow their acoustic evolution through periodic measurement campaigns and perception surveys, to promote them to local structures within the framework of neighbourhood projects.

Debate and interventions from the audience

Chris BLACHE

The European directive announces a number of criteria, in terms of measures, of definition of space, of communication with the inhabitants, and we have just seen its implementation in Paris. Have you worked in cooperation, upstream, for a more global project for Paris and the surrounding departments, within which the demands of the European directive were integrated?

Kevin IBTATEN

We have tried to remain pragmatic, starting rather from the directive and the reading of symposiums of acoustics professionals. But right from the start, our working groups on quiet zones have involved the services of roads and urban planning of Paris. There have been many debates to explain this notion of quiet zone to technical teams.

Speaker

As it was said in Barcelona, Rotterdam and elsewhere, an element is not taken into account in this European directive, while it demands a participation of the public: the issue of so-called neighbouring nuisances (public, festivities, and so on). As all cities have the same problem, and as you announce that these nuisances are not taken into account in your programme, must we consider that the system is definitely gripped?

Kevin IBTATEN

The plan of prevention against noise in the environment is a tool against transport noise. Neighbourhood noise and night festive activities are dealt with the General Assembly of the Night. In quiet zones, the issue of festive noise was nevertheless taken into account when the population was consulted, since some areas were taken off the list because of the nightly activities, whereas in those areas, traffic noise nuisances were nearly non-existent. In the Paris town hall, some people deal with the reception of and answer to complaints on festive noise, and captors have been set up in some streets to measure noise levels, in particular in the street rue Jean-Pierre Timbaud.

Henk WOLFERT

As a city, a competent body, you are free to include other kinds of noise in your action plan. You only are obliged, by the European Union, to include traffic noise, railway noise, industrial noise and noise from airports. But you can add other kinds of noise as well, you're free to do it, and I'm happy to hear that these consultations and involvement of the public is a success in Paris. I did some consultation rounds in the city of Rotterdam, in my former position. For the first consultation round, 400 people were invited but only 1 person showed up! In the next one, we had 5 people...

Igone GARCIA

Regarding the examples that you have been talking about, about the activity of people outside, we probably have to deal with a situation in which people joining these activities probably don't consider the area as "quiet" but as "pleasant", and you have to find a balance with the neighborhood and citizens around. I'm not referring about "night life", which is always a lot of noise.

Marco PAVIOTTI

The END was developed 10 years ago and its specific goal was to prevent against health effects. There is always space in the legislation to expand it to new areas that would be relevant and interesting.

From the perspective of the Commission, I would be interested to have all these contributions develop under partially funded projects like the Life+ project. Experiences coming from the cities, and contributions from the working panel working for the Environmental Agency, coming to a single "pot". I would appreciate it if we could find a way to exchange and put and collect all the information that we have on the definition of a quiet area, so that good practice choices, methodologies used, would be to the benefit of anyone in Europe that would like to use it in Europe. In general, I promote a sharing of information that could pass through the internet, instead of static PDFs or reports of 100 pages or even more that no one would read anyway.

Issues and first results of the Harmonica project, Fanny Mietlicki, BRUITPARIF

The Harmonica project (Harmonised Noise Information for Citizens and Authorities) is supported by the Life + programme of the European Commission. It is coordinated by Bruitparif, in a partnership with the Acoucité observatory (urban community of Lyon), and with the help of the working group on noise of Eurocities. The budget amounts to 1703000 €, with 50% of contribution by the European Union. The first results have just been published, aiming at reaching a simple noise indicator, closer to what people perceive, which will allow to greatly improve information and heighten awareness. The project was born from a confrontation with public powers and the making of the first noise maps, which were the occasion to see how little the notion of decibels meant to the general public.

The idea is therefore to make up an index, from 0 to 10 for example, which could account for all noise events, the average noise within a given period or noise peaks during punctual events, the traffic noise as well as the urban soundscape. The project first investigated on the practices on that issue in European cities, through questionnaires.

A whole field of work already exists on the harmonization of noise zones for the devices, the functionalities and the measurement principles are not the same in Paris, in Madrid, in Brussels or in Dublin. To sum it up, three sorts of measurement stations are deployed: stations aiming at characterizing the exposure of the population to noise, stations aiming at a long term monitoring, and therefore the evaluation of the evolution of sound atmospheres, and stations trying to characterize a sound atmosphere within a given environment where people can meet at a given time in the city. The means implemented vary, according to the moment the measurement networks were set up, as some devices are not equipped with the latest functionalities of acoustic technology.

Four noise indexes were made within the project. They take into account the average noise, the events, the periods of quiet, and the periods of excessive noise. The indexes are being tested over 8 different sites, with 240 people questioned. Laboratory interviews, with audio recordings on the sites, with experts and citizens, allow us to collect after the fact points of view on these noises.

A selection of indexes is planned for the first quarter 2013. They include in particular parameters like background noise, average noise, the dynamics of noise and the number of sound events, organised differently for each index.

The results expected from the project are a harmonisation of practices, a general public noise index and a platform to spread this index within noise monitoring networks in Europe. A database of good practices in fighting noise will be set up online.

Closing speech of Michèle Sabban, vice-president of the regional Council of Ile-de-France in charge of the personnel, the general administration and public markets and President of the Assembly of Regions of Europe.

The topic and the issue dealt with today, « preventing and managing noise in the city » is little present in the public debate. Discussions take place between experts, while the stakes are high on an issue which is not recent. Many of the speakers today took care to mention how old the local awareness of the issue was, in several European local authorities: Rotterdam, Barcelona, Stockholm, Brussels, and others.

However, as elected officials, the stake for us was also to draw an assessment of the results of the implementation of the 2002 directive of the European Council, relative to the assessment and management of noise in the environment. The least we can say about it is that the results are mixed. In the first place, the change of noise evaluation indicator, prescribed by the directive, made the comparison of data collected before and after the implementation of the directive very difficult. The homogenization required by the European council in this matter is so long in taking effect that we expect now to perceive the real effects of the directive only in about twenty years.

The absence of a strong lobby in Brussels to state the stakes of this difficult issue also contributes to its dilution. The directive must therefore be consolidated by being included within a larger framework and the creation of a single European authority, aiming at creating the noise maps, is largely wished for.

The results of the measures adopted by European local authorities in their action against noise are also quite mixed. Several speakers have mentioned the low efficiency of some measures, like road surfacing, as well as the concerns raised by an ever growing urban demography, an inexorable source of more noise.

However, round tables today have allowed us to put to the fore several successes in the fight against noise. Thus, the creation of ring roads around large cities relieves the congestion within these cities, and thus causes a decrease of noise. Quiet and low speed areas, put into place in cities such as Florence, have also proved their efficiency. Aids to the insulation of dwellings like in Stockholm or in Rotterdam also participate in these successes.

At last, several of you have, quite aptly, focussed on the need to play on the design of buildings and the density of green spaces, tools put forward by the HOSANA project to contain the propagation of noises in town.

I observe therefore that despite the scepticism sometimes prevailing on this issue, noise policies can be fruitful, providing, however, a working method has been clearly defined, the lines of which I think I gathered along the various interventions.

It seems to me that the policies of urban noise reduction may intervene in three ways:

-prevention policies: as on any environmental issue, anticipation is the best attitude to adopt. Heightening the awareness of citizens on responsible behaviour, and the incitement to less noisy modes of transportation, such as electric cars or public transports, appear to be two major elements

-intermediary policies: they do not act at the source, without offering direct protection to inhabitants. It may be the category of policy which covers road surfacing changes as well as anti-noise barriers, which have a more questionable efficiency.

-measures of direct protection of inhabitants against the noise, like the insulation of dwellings, which also have the drawback of a lack of anticipation

It is necessary to establish a dialogue between all the actors concerned: between the noise makers and the ones who endure noise, between all public authorities in order to have a multi-level approach of the issue, a dialogue between citizens and public authorities, top down during awareness campaigns, and bottom up to know what the population feels. Lastly, a dialogue between urban planning experts and environmental experts, so as to lead policies of territory planning in cohesion with all the environmental objectives that a local authority can set. The law projects set up by the city of Vienna seem to have perfectly taken in the necessity of this approach, and this is a cause for congratulation.

Lastly, it is of high importance to make all parties aware of the transversal aspect of the issue of noise, so that all sectors of public policies may concur to its resolution.

But what I will remember from this symposium is the wonderful synergy which comes into place when European local authorities take part in the experience and good practices are exchanged. In that respect, I wish to take advantage of the presence of several local authorities coming from the member regions of the Assembly of European regions, which I head, to invite the cities of Barcelona, Brussels, Oss, Florence, Vienna, to prompt their regions to take hold of these issues, and to bring them forward within the Assembly of European regions, so that they find an echo there. The AER, which has been exchanging on challenges and experiences for 25 years now, will take pleasure in bringing in its expertise and know-how.

Urban noise is no small issue of public policies. This is not just a vague annoyance felt by a minority in the population, for which superficial treatment would be enough. If we are gathered here to deal with this problem, it is because it is a public health issue

Yes, the physical and psychological health of our co-citizens is at stake, so much so that the necessary transversality of this issue cannot stop to matters of transports or dwellings, but also includes, let's face it, economic aspects.

At a time when our governments are trying to get out of the crisis which has been striking us for several years, it is not inconceivable to consider the well-being of the workers as a determining factor of their productivity. Several large companies have already tried it with success, and it may be time, for public powers as well, to adopt a new approach by relying more on quality indicators than on quantity ones. The air they breathe, the food they eat, and the quietness of the environment in which they evolve must become the new stakes of European decision-makers who want to move towards improved competitiveness.

At a time when we are looking for some leeway to use in order to go ahead in the international economic competition, the well-being of citizens is a major challenge of the century to come. This topic, and many others, will be studied during the second summit on the crisis, organized in Varsovia by the ARE in February 2013, to which you are all invited.