State representative office of Rhineland-Palatinate
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Panel discussion
"Noise policy in Europe – do we need Europe-wide limit values?"

Minister of State Ulrike Höfken

The spoken word takes precedence!
A presentation by
Minister of State Ulrike Höfken

Mr Leinen,
Director General Falkenberg,
Ms. Stauffer
Dr Tidow,
Ladies and gentlemen,

I am delighted that so many of you accepted our invitation to the Rhineland-Palatinate state representative office today and that we are joined in our discussion of the current noise policy in Europe by Jo Leinen, chairman of the Committee on the Environment, Public Health and Food Safety of the European Parliament, Karl Falkenberg, general director of the DG Environment, and Anne Stauffer from the Health & Environment Alliance. I would like to extend a warm welcome to the Members of the European Parliament, the representatives from the Federal Ministry for the Environment and the Federal Environment Agency, the Noise Working Group of the German Acoustics Society as well as the representatives of manufacturers, organisations and citizens’ groups from the whole of Europe.

A number of European noise regulations currently need to be revised, including the "Directive relating to the assessment and management of environmental noise" (2002/49/EC), Environmental Noise Directive for short; the "Directive relating to noise emission in the environment by equipment and machinery for use outdoors" (2005/88/EG), "Outdoor Noise Directive" for short, and the EU regulation proposal on the noise levels of motor vehicles (KOM(2011) 856 final). Rail traffic noise is regulated by the EU Directive on "the levying of charges for the use of railway
infrastructure via noise-dependent route prices" (2001/14/EG) and the Technical Specification for Interoperability (TSI) relating to the subsystem "cars – noise" of the conventional trans-European rail system, the TSI Noise. The EU regulation proposal on the rules and procedures for noise-related operating restrictions at airports (KOM(2011) 828 final), operating restrictions regulation for short, is currently a hotly debated topic in Germany.

I Environmental Noise Directive

The reason for today's event is the updating of the Environmental Noise Directive. The title of the European Commission's Green Paper of 1996 was "Future European Noise Policy". Europe recognised that the member states would not be able to solve the noise problems in the agglomerations and on the major traffic routes by themselves. Alongside the source-based measures – noise limit values for road and rail vehicles and for equipment and machinery – the area-based protection of the population has been a European task since then.

Here, I would like to draw your attention first of all to the "Outdoor Noise Directive" from 2000, which was already intended to be an important source-based measure in the Green Paper. It places demands, for example, on construction machinery and gardening equipment, which are of great significance for environmental noise in residential areas. The updating of this directive has unfortunately come to a standstill. I would be very pleased if work on it were to be continued soon.

One consequence arising from the Green Paper was, in particular, the Environmental Noise Directive from 2002. This Directive provides new impetus for noise control in Europe. Due to Europe-wide noise mapping, we know today that millions of people in Europe are exposed to environmental noise which exceeds the healthy values. If the noise maps, as is necessary, recorded the noise from all sources, that is the overall noise, the number of people shown affected by noise would be considerably higher.
The noise mapping of 2007 was followed by the noise action plan in 2008. From the analyses of these plans, it is clear that far too few concrete measures are initiated and implemented. Why is that the case?

Unless an objective criterion is violated, there is generally neither the need for action nor the opportunity for action for the administration. For budget law prohibits the provision of funds without a need for action, at least in Germany. Therefore, for a successful noise policy, it is necessary to formulate binding objectives. Otherwise, the "noise administration" is retained.

The question arises: does it have to be European protection targets or limit values? Noise effect research sees no differences in the need for protection of Finns or Italians, for example. More and more traffic is to be processed on the trans-European transport networks. Therefore, the traffic occurs across borders. European protection targets also ensure that there can be no distortion of competition for noise control reasons in the domestic market. The economic performance of member states should not play a role in the objective of health protection. When it comes to concrete implementation, however, the member states are in demand.

An important result of the cooperation of the Joint Research Centre of the European Commission and the WHO is the "WHO Night Noise Guidelines for Europe" (NNG). These include clear noise values as targets for health protection and planning targets for the long-term avoidance of substantial disturbances.

When the Environmental Noise Directive is updated, the results of the Guidelines should be introduced into the Environmental Noise Directive as concrete protection targets: that is the value of 55 dB for noise from road traffic at night. This corresponds to a value of 65 dB for the daytime. These values are already included in the Green Paper of 1996 and have since been confirmed by further research. For long-term planning and as a precaution, target values must be formulated, according to the WHO, which should be somewhat lower than 10 dB.
Another reason for European protection values is, however, that, as a result, Europe would be obliged to consistently utilise state of the art noise control technology when updating the source-based requirements. In our opinion, this is not yet sufficiently the case.

The citizens in Europe affected by noise need exacting emission regulations for the noise sources, in accordance with the state of the art, and need these to be systematically and regularly updated. Such noise control measures at the source are effective and cost-efficient! This is part of the necessary "European noise action plan", as I would like to refer to it.

II Road traffic noise
BR Drs. 817/11 –EU regulation proposal on noise levels of motor vehicles

I would now like to address the latest European proposals on noise control. Road traffic is the most harmful source of noise in the environment in Europe. According to a report commissioned by the DG Environment, 55 million people in Europe are currently greatly disturbed or bothered by road traffic noise alone. The sleep of 27 million people is greatly disrupted.

Therefore, I welcome the regulation proposal of the European Commission to regulate the noise level of motor vehicles. After almost 20 years, it aims to achieve the overdue modernisation of the limit values and the associated measurement procedure.

There is a consensus that noise control measures at the source show a particularly high benefit-cost ratio, and are, therefore, particularly efficient. The report that I have just mentioned calculates benefit-cost ratios of up to 26 for the motor vehicle limit values. The costs for proposals that are in the interests of manufacturers and place less exacting demands on noise control at the source are borne by the countries and the
towns. Consequently, they would have to bear unnecessarily high costs for noise-reducing road surfaces, soundproof walls or soundproof windows.

The proposal of the Commission leads to reductions somewhat quicker than a proposal from Germany – by about 2030. As a result, however, only a similarly low real reduction by around 1.5 dB(A) will be achieved.

Therefore, I call for the limit values to be lowered faster and more intensely. The European Automobile Manufacturers' Association ACEA (Association des Constructeurs Européens d’Automobiles) has also examined appropriate further-reaching proposals.

**III Aircraft noise "operating restrictions regulation"**

[BR-Drs. 799/11 - EU regulation proposal on noise-related operating restrictions at airports]

I would now like to come to aircraft noise. In December, the European Commission put forward a regulation proposal for noise related operating restrictions at major commercial airports in Europe.

The Rhineland-Palatinate state government rejects this proposal by the EU Commission as it will not contribute towards significantly reducing noise pollution for the affected population. Instead of improving noise control for the affected residents, the proposal is clearly in favour of the economic interests of the aviation industry (airport operators, airline companies and air-traffic control). This is a step backwards in noise control.

The focus is on the impact of operating restrictions on the capacity of an airport and of the entire European air traffic network. The proposal serves the continued implementation of the Commission’s objective to improve the capacity and flight efficiency, as part of the creation of a uniform air space.
The state government rejects this one-sided objective which is at the expense of noise control. In view of the sleep of the population, the government demands that noise control be a higher priority at night. When weighing the different interests, greater importance should be given to health, at least at night, than to economic interests.

According to the draft, the Commission will for the first time have the right to monitor and suspend operating restrictions. With this document, the night flight ban at an airport such as Frankfurt might be suspended when faced with loss of capacity and distortion of competition or it might hardly be implemented due to the weighting of European concerns. The Rhineland-Palatinate state government rejects these far-reaching powers of the Commission as well as the specification of the established bureaucratic requirements for the introduction of operating restrictions.

Under this draft, member states can only take into account the particular situation of an airport to a limited degree. However, it is essential that freedom of movement is maintained at a national level with regard to the specific, regional conditions of an airport, which need to be considered. Without this freedom of movement, it is impossible to devise individual solutions.

The Working Group of German Aircraft Noise Commissions has already expressed grave concerns about the content of the regulation proposal. I share these concerns and see considerable need for improvement in the regulation proposal. This is a matter of abolishing excessive bureaucracy – maybe in the context of cost efficiency for noise-related operating restrictions. It is also a matter of retaining the ability to make national decisions regarding the introduction of operating restrictions. Finally, it is a matter of improving the definition of commercial aircraft, whose noise reduction technology no longer conforms to modern day standards, and which can therefore be phased out gradually. In terms of peace and quiet at night time, a target for night time noise level is absolutely vital. While assessing different issues a higher importance must be attached to health, at least at night time, over and above
economic issues. In doing so, regional characteristics (e.g. population density in the area around the airport) should be taken into account.

A superficial consideration of the noise maps could lead to the conclusion that aircraft noise is a marginal problem in Europe, after road and rail traffic noise. This is, however, not the case. For it has long been proven by many studies that the disruptive effect of intermittent aircraft noise is considerably higher than that of more even road traffic noise with the same noise level. This is expressed in a so-called "aircraft noise premium". This aircraft noise premium is higher now than in the past. The definitive European characteristic curves, the dose-response functions, must be adapted to these newer findings. The results of the WHO study have likewise not yet been incorporated into the European dose-cost functions, according to which the noise pollution costs are determined.

Before these characteristic curves are updated, protection from aircraft noise would be systematically reduced by the specifications of the regulation proposal.

To clarify the problem of aircraft noise: Frankfurt am Main Airport is at the centre of an agglomeration that also extends to Rhineland-Palatinate. There, 420,000 people live and sleep within the night-time protection zone that I have just identified. 420,000 people disturbed by noise pollution are certainly not a marginal problem!

In this place, the potential for land use planning for noise control is exhausted. The penetration of the market by quieter aeroplanes is also known to have been an issue of several decades and will probably even be eroded by a further increase in traffic. Even noise-reducing operating procedures, as the third planned measure in the "balanced approach" of the International Civil Aviation Organisation - ICAO, do not result in any drastic noise reductions. The fourth option, operating restrictions, remains, therefore. It is, however, a matter for the national and local authorities to make the final decision on such restrictions. For the principle of subsidiarity applies. The impact of the noise is local, so the decisions must also be made locally!
In anticipation of the revision of the Environmental Noise Directive, the proposal for the regulation on operating restrictions provides for a concrete calculation method, in the event of aircraft noise, for the assessment of measures at the major commercial airports. I would, therefore, like to ask the Commission whether the European calculation methods, which were compulsory solely for noise mapping up to this point, are also to be used for planning measures for the noise action plan in the future.

When planning measures against aircraft noise - and also for rail traffic noise - a close examination is necessary: in addition to long-term average noise levels, individual sound events must also be given special consideration. Similarly, loud and less loud periods should not simply be offset against one another. Whether conversations can take place without disruption does not depend on a long-term average value, but on the current level of noise pollution. If someone is woken by a single aeroplane in a loud night, it does not help them much that such an event does not occur in an average night.

**IV Rail traffic noise**

I would now like to come to rail traffic as the third important source of traffic noise. Rail traffic is known to be a comparatively environmentally friendly way of transporting people and goods for several reasons. A major reason for this is its concentration and thus a reduced use of space. Due to this concentration, the noise pollution is focussed on a few, intensely affected people. In the Upper Middle Rhine Valley, which has been a UNESCO World Heritage Site since 2002, the average values of noise of 75 to 80 decibels are achieved on the freight routes - at night. This is verified by measurements of the states of Rhineland-Palatinate and Hesse on either side of the Rhine. Here, therefore, in comparison to the WHO protection target of 55 decibels, there is a noise problem of about 25 decibels. In order to solve this problem, the number of trains must be reduced by a factor of about 250!
Since 2003, cast iron brakes have no longer been state of the art technology. The so-called composite brake pads have been approved throughout Europe since then. Even when one single freight train with the old technology goes past, the noise value for a whole night is exceeded. But the maximum noise levels of the freight trains are remarkable: they have a range of about 95 to 100 decibels. For the inhabitants of the community most disturbed by the railway noise, this means waking up to 12 times per night. According to our survey, however, only 11 % of the inhabitants of the Upper Middle Rhine Valley were offered soundproof windows by the Deutsche Bahn.

A prohibition of freight train traffic in the Middle Rhine Valley, at least during the night, for the protection of health, would be provided by the competent authorities if the Pollution Control Act which applies to industrial plants in Germany also applied to the railway.

The route is part of the trans-European transport network. Further increases in traffic between Genua and Rotterdam are predicted and also desired by many parties. The essence of the solution is, in the first place, the complete replacement of the cast iron brakes with composite materials in all - I emphasise in all - rolling stock. And, in the second place, acoustic rail maintenance, known as "especially monitored track" in Germany.

Only with both measures together can the full noise reduction potential of 10 decibels be realised. For the amount of roughness on the wheels and the tracks determines the generation of noise. Even a small proportion of locomotives and carriages with roughened wheels prevents the noise from being perceptibly reduced. It also ensures that the tracks constantly continue to be roughened. At least half of the noise reduction potential of 10 decibels is lost in this way. Measurements in Switzerland verify these relationships. Switzerland's announcement that it will not allow freight trains that are too loud to pass through the country anymore from 2020, is, therefore, a logical consequence. I expressly support Switzerland in this. By 2020, the transport sector has sufficient time to adapt.
What should the Commission do? The so-called “TSI Noise”, the revision of which is currently being prepared by the Commission, is decisive for the noise limit values. Its noise limit values which previously only applied to new material should also, in the future, apply to all freight carriages with cast iron block brakes as the loudest kind of vehicle. And also to the existing stock.

I consider noise-dependent route prices to be an economically very sensible solution for charging the polluters for the external noise costs which were previously borne by the residents and the general public. However, like many experts, I am ruling out the possibility that this alone can achieve a complete conversion by 2020. Traffic bans are, therefore, necessary from 2020 for freight trains that are too loud in highly contaminated areas.

In other respects, I expressly welcome the Commission's intention to introduce a binding, standardised noise-dependent route price system in Europe through the revision of EU Directive 2001/14/EC.

At the 7th annual workshop of the International Railway Association UIC on rail traffic noise in Paris in November, remarkable study results were presented: according to these, 43 % of all the European rail freight is processed in only six European freight corridors. The costs for measures for adhering to the WHO protection value of 55 decibels there amount to approximately € 11 billion. In terms of magnitude, these costs correspond to the annual noise pollution costs. This is counterbalanced by a reduction in the number of people with disrupted sleep in Europe by almost 40%.

V Summary

The new studies of the WHO and the Joint Research Centre of the Commission, and Europe-wide noise mapping demonstrate a great need for action. In the recently published study, the "WHO Report on Burden of Disease from
Environmental Noise”, the impact of noise on health is quantified. This report places particular emphasis on the need for action.

Finally, I would like to summarise my most important statements in six theses:

1. The introduction of a Europe-wide target value in the Environmental Noise Directive for the protection of health on the basis of the WHO Night Noise Guidelines is a decisive step towards triggering effective noise control measures to the necessary extent. Here, it is necessary to adjust to the environmental noise with a general effect. The individual member states can achieve this target value in different periods, according to their capabilities.

2. The European Union has to coordinate the transport and noise policy in the various directorates general better – for example in a European noise action plan. In decisions concerning noise control, the noise pollution costs, according to the latest information, must be taken into consideration and incorporated into cost-benefit analyses. The principles of the European environmental policy of combatting noise at its source, in the first instance, and applying the "polluter pays" principle must be observed more consistently.

3. The future regulation on operating restrictions at commercial airports must pay greater attention to protection against aircraft noise and be adjusted to the Environmental Noise Directive. The principle of subsidiarity must be observed.
4. The limit values for motor vehicles must be lowered faster and more intensely because measures at the source comply with the "polluter pays" principle and show an excellent benefit-cost ratio.

5. If the quantities of traffic and the traffic noise on the national transport networks are increased in the interests of Europe, Europe should be explicitly and more heavily involved than previously in the financing of the necessary noise control measures.

6. The limit values that apply to new locomotives and freight carriages must also apply to the existing stock by 2020 at the latest.

For climate protection and resource-related reasons, the growth of the economy is no longer unavoidably linked to an increase in energy consumption. We are not here today to discuss the issue of whether an increasing transport volume is really necessary for greater prosperity. I hope, however, that today's event provides answers to the question of how, with a predicted increase in the transport volume, it may be possible not only to avoid a further increase in noise pollution, but to significantly reduce it.

Thank you for your attention.