

Edinburgh, Scotland  
**EURONOISE 2009**  
October 26-28

## **Revision of the European noise Directive in 2009**

Balazs Gergely

European Commission, Directorate General Environment, Avenue de Beaulieu 9, 1160 Brussels, Belgium

### **1. INTRODUCTION**

Noise pollution is high on the list of citizen concerns and noise reduction has increasingly become a focus for EU legislation and a priority for research. In the 1996 Green Paper on Future Noise Policy<sup>1</sup>, the Commission addressed noise in the environment as one of the main environmental problems in Europe. Following the Green Paper, the European Parliament and the Council adopted Directive 2002/49/EC relating to the assessment and management of environmental noise<sup>2</sup>. The general aim of the overarching Directive is 'to define a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise'.

This paper provides an overview of the implementation of the Directive and the development of the EU noise policy, with a particular emphasis on the review of the legislation.

### **2. ASSESSMENT AND MANAGEMENT OF ENVIRONMENTAL NOISE**

#### **2.1 Background**

The Commission's Green Paper on Future Noise Policy (1996) marked the start of an extended "knowledge based" approach with a special emphasis of assessing and managing the exposure to environmental noise.

The Directive basically requires the competent authorities in the Member States to progressively draw up strategic noise maps and adopt action plans for agglomerations, major roads, major railways and major airports; these are defined by the Directive and designated or delimited by the Member States.

The purposes of the strategic noise maps are to determine the exposure to environmental noise while using common noise indicators, to inform the public on environmental noise and its effects and to report to the Commission some data on exposure to noise. One objective is to use common assessment methods. Until these methods are established by the Commission, the Member States may use interim methods, or national methods providing equivalent results. The Commission published non-legally binding recommendation on interim methods.

The purposes of the action plans are to prevent and reduce environmental noise 'where necessary and particularly where exposure can induce harmful effects on human health' and to protect 'quiet areas'. According to the Directive, the Member States are exclusively competent to fix the standards (noise limits, noise targets, noise values to consider for the designation

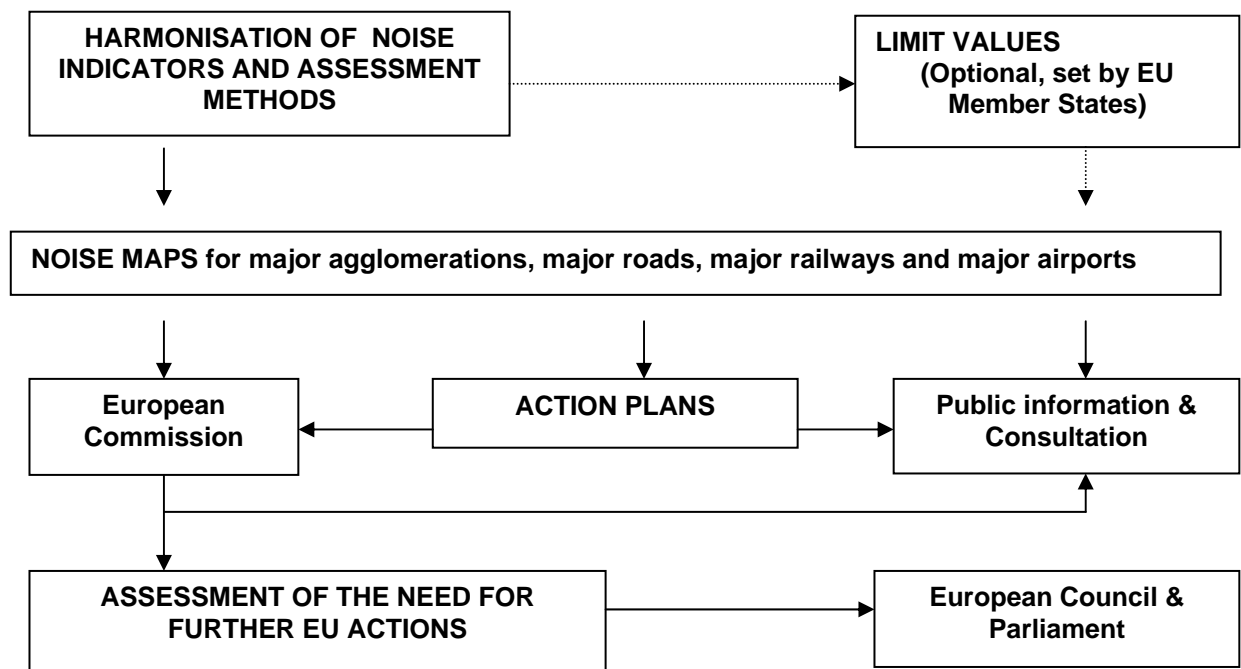
and protection of quiet areas etc.) which cause competent authorities to consider or enforce noise mitigation measures. In addition, the measures within the plans are at the discretion of the competent authorities.

The European Commission and the European Environment Agency (EEA) are working on the assessment of the reports on noise maps and on the summaries of action plans submitted by the Member States. The European Topic Centre based in Barcelona provides technical assistance to the EEA in the quality analysis of the noise reports

## **2.2 The Environmental Noise Directive 2002/49/EC**

Further to the European Commission's legislative proposal of July 2000 (COM(2000)468), the European Parliament and Council adopted Directive 2002/49/EC of 25 June 2002 relating to the assessment and management of environmental noise. The aim of this Directive is to provide a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise. Its underlying principles are similar to those for other overarching environment policy directives (see also figure 1):

- Monitoring the environmental problem: competent authorities in member states are required to produce strategic noise maps for major roads, railways, airports and agglomerations, using harmonised noise indicators namely  $L_{den}$  (day-evening-night level) and  $L_{night}$  (night level). The use of dose-effect relations will allow for the assessment of the effects of noise population in Europe, on the basis of the numbers of people exposed to noise derived from the strategic noise maps
- Informing and consulting the public: competent authorities are required to ensure public information and participation, in line with the principles of the Aarhus Convention on access to information and public participation in decision-making.
- Producing local noise action plans: competent authorities are required to draw up and publish noise action plans to reduce noise where necessary and maintain environmental noise quality where it is good. Close public participation and consultation must be ensured when drawing up such plans, whose actual content is left at the discretion of competent authorities, the directive only laying down minimum requirements for the plans.
- Developing a long-term EU strategy: the directive includes objectives to reduce the number of people affected by noise in the longer term, and provides a framework for developing existing Community policy on noise reduction from source.



**Figure 1** – Principles of Directive 2002/49/EC

### 2.3 Provisions of Directive 2002/49/EC

The Environmental Noise Directive 2002/49/EC contains several provisions which require Member States (MS) to communicate information to the European Commission (EC).

Data Flow	Summary description of information to be reported to the Commission	legally binding deadline	Updates by MS	END provision
DF1	Major roads, major railways, major airports and agglomerations designated by MS and concerned by 1 <sup>st</sup> round (2007-2008)	30 June 2005	Mandatory Every 5 years	Art. 7-1
DF2	Competent bodies for strategic noise maps, action plans and data collection	18 July 2005	Possible At any time	Art. 4-2
DF3	Noise limit values in force or planned and associated information	18 July 2005	Possible At any time	Art. 5-4
DF4	Strategic noise maps related data as listed in annex VI for major roads, railways, airports and agglomerations concerned by 1 <sup>st</sup> round <ul style="list-style-type: none"> <li>Per agglomeration <math>\geq 250,000</math> inhab.</li> <li>Per major civil airport <math>\geq 50,000</math> movts/y</li> <li>For overall major roads <math>\geq 6</math> millions veh/y</li> </ul>	30 December 2007	Mandatory Every 5 years	Art. 10-2 Annex VI

	<ul style="list-style-type: none"> <li>For overall major railways <math>\geq 60,000</math> trains/y</li> </ul>			
DF5	Major roads, major railways, major airports and agglomerations designated by MS and concerned by 2 <sup>nd</sup> round (2012-2013)	31 December 2008	Possible At any time	Art. 7-2
DF6	Noise control programmes that have been carried out in the past and noise-measures in place <ul style="list-style-type: none"> <li>Per agglomeration <math>\geq 250,000</math> inhab.</li> <li>Per major civil airport <math>\geq 50,000</math> movts/y</li> <li>For overall major roads <math>\geq 6</math> millions veh/y</li> <li>For overall major railways <math>\geq 60,000</math> trains/y</li> </ul>	18 January 2009	No update	Art. 10-2 Annex VI 1.3 & 2.3
DF7	Action plans related data as listed in annex VI for major roads, railways, airports and agglomerations concerned by 1 <sup>st</sup> round + Any criteria used in drawing up action plans <ul style="list-style-type: none"> <li>Per agglomeration <math>\geq 250,000</math> inhab.</li> <li>Per major airport <math>\geq 50,000</math> movts/y</li> <li>For overall major roads <math>\geq 6</math> millions veh/y</li> <li>For overall major railways <math>\geq 60,000</math> trains/y</li> </ul>	18 January 2009	Mandatory Every 5 years	Art. 10-2 Annex VI + Art. 8-3
DF8	Strategic noise maps related data as listed in annex VI for major roads, railways, airports and agglomerations concerned by 2 <sup>nd</sup> round <ul style="list-style-type: none"> <li>Per agglomeration <math>\geq 100,000</math> and <math>&lt; 250,000</math> inhab.</li> <li>For overall major roads <math>\geq 3</math> millions and <math>&lt; 6</math> millions veh/y</li> <li>For overall major railways <math>\geq 30,000</math> and <math>&lt; 60,000</math> trains/y</li> </ul>	30 December 2012	Mandatory Every 5 years	Art. 10-2 Annex VI
DF9	Noise control programmes that have been carried out in the past and noise-measures in place <ul style="list-style-type: none"> <li>Per agglomeration <math>\geq 100,000</math> and <math>&lt; 250,000</math> inhab.</li> <li>For overall major roads <math>\geq 3</math> millions and <math>&lt; 6</math> millions veh/y</li> <li>For overall major railways <math>\geq 30,000</math> and <math>&lt; 60,000</math> trains/y</li> </ul>	18 January 2014	No update	Art. 10-2 Annex VI 1.3 & 2.3
DF10	Action plans related data as listed in annex VI for major roads, railways, airports and agglomerations	18 January	Mandatory Every 5	Art. 10-2 Annex VI

	concerned by 2 <sup>nd</sup> round + Any criteria used in drawing up action plans	2014	years	+ Art. 8-3
	<ul style="list-style-type: none"> <li>• Per agglomeration <math>\geq</math> 100,000 and &lt; 250,000 inhab.</li> <li>• For overall major roads <math>\geq</math> 3 millions and &lt; 6 millions veh/y</li> <li>• For overall major railways <math>\geq</math> 30,000 and &lt; 60,000 trains/y</li> </ul>			

Disclaimer: only Directive 2002/49/EC itself is applicable in law; the above table is just guidance with a view to help understand the deadlines laid down in this Directive.

A Reporting Mechanism<sup>3</sup> has been established and proposed to the Member States, to help and facilitate the task of fulfilling the reporting obligations. Several electronic templates have been developed. The European Environment Agency has finalised the Reportnet<sup>4</sup> system for electronic delivery of environmental noise data using the reporting mechanism. This is designed to support and assist the Member States in fulfilling their reporting requirements in the near future. Guidelines for delivery of noise data to Reportnet are available on the CIRCA website<sup>3</sup>.

### 3. REVIEW OF DIRECTIVE 2002/49/EC

As requested under Article 11 of the Directive 2002/49/EC, the Commission intends to submit to the European Parliament and the Council a report assessing the implementation of the Directive.

This report will review the implementation of the key provisions of the Directive by the Member States. In addition, it may, if appropriate, be accompanied by proposals for the amendment of the Directive and by an Action Plan outlining further implementing strategies and Community actions on environmental noise.

The 6th Environmental Action Programme<sup>5</sup> adopted in 2002 by the Council and the European Parliament identifies 'Environment and Health and Quality of Life' as one of the four environmental priority domains. Under this priority, the Programme stipulates that Community's environmental policy should take account of World Health Organization (WHO) standards, guidelines and programs and should aim at 'substantially reducing the number of people regularly affected by long-term average levels of noise, in particular from traffic which, according to scientific studies, cause detrimental effects on human health'. Over the past few years, a large body of evidence on the health effects of noise, particularly transport noise, have been published.

Based on the assessment of the reports submitted thus far by the Member States under the Directive and on the technical support from DG Joint Research Centre<sup>6</sup> the Commission is currently reviewing Directive 2002/49/EC, giving special attention to the recommendations of the WHO on noise and human health, with the overall aim of reaching the objectives of the aforementioned 6th EAP.

In December 2008, Milieu Ltd, Risk and Policy Analysis Ltd and TNO were commissioned by DG Environment of the European Commission to undertake a project<sup>7</sup> to review the

experiences of Member States in implementing Directive 2002/49/EC. The project responds to Article 11 of the Directive, which requests an assessment of implementation.

### **3.1 Development of common assessment methods**

The European Environmental Noise Directive (2002/49/EC) requires to the Member States to produce noise maps and noise reduction action plans and also aims at rising awareness about environmental noise exposure at both European and national levels. According to the Directive, these noise maps and action plans should have been obtained by employing either the interim noise assessment methods or equivalent national methods.

The European Commission provided the Member States with recommendations and guidelines<sup>8</sup> on the use of the assessment techniques and for clarifying unclear provisions of the Directive. The European Environment Agency also provided support to the collection and delivering of the noise maps through the Environmental Noise Directive Reporting Mechanism (ENDRM) including the Reportnet IT tool. Regardless of the aforementioned supporting documents, the production of noise maps by the EU MS followed different approaches between and within the different Member States that consequently influenced the quality of the noise maps.

In the context of the last Noise Regulatory Committee meeting in May 2008 and during other recent technical and scientific forums, representatives and experts of the EU Member States expressed their concerns about the quality, availability and comparability of input values and techniques used in the noise mapping. Inconsistencies in noise maps across member states will arise despite them using the same interim method and even if a common harmonised method will be in place in the future – due to the quality of the input data. Further to this, in the context of the review of the END the European Commission intends to propose to the European Parliament and the Council common assessment methods, aimed at obtaining comparable results across the EU Member States regarding the four major environmental noise sources. The preparation of the common assessment methods is ongoing by the Joint Research Centre of the European Commission based in Ispra, Italy.

## **CONCLUSIONS**

Environmental noise is a serious health problem, which reduces the health and quality of life of over 90 million people in the EU. The Commission agreed to take action to address the problem in its 1996 Green Paper on Future Noise Policy.

Directive 2002/49/EC, providing a common and integrated basis for tackling the noise problem across the EU, allows for a better protection of people exposed to noise in major agglomeration and in the vicinity of the main transport infrastructures. Strategic noise maps provides not only an overview of the noise exposure situation, but also a basis for local action plans drawn up by competent authorities to address noise issues, in close consultation with the public.

The European Commission and the European Environment Agency are working on the assessment of the data reported by the Member States, therefore our knowledge on exposure data will improve. The current data is very new and outlook scenarios have not yet been completed but the European Noise Directive is now under a review which takes into account the degree of exposure and the effectiveness of action plans, by giving attention to the publications of the WHO.

## REFERENCES

1. European Commission Green Paper on the Future EU noise policy – COM(1996)540 final
2. Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise, Official Journal L 189, 18/07/2002 P. 12 – 26
3. <http://ec.europa.eu/environment/noise/data.htm>
4. <http://cdr.eionet.europa.eu/>
5. Decision N° 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme, Official Journal L 242, 10/09/2002 P. 1 – 15
6. <http://ec.europa.eu/environment/noise/home.htm>
7. <http://www.milieu.be/noise/>
8. [http://circa.europa.eu/Public/irc/env/noise\\_map/library](http://circa.europa.eu/Public/irc/env/noise_map/library)