

# European Environment Agency

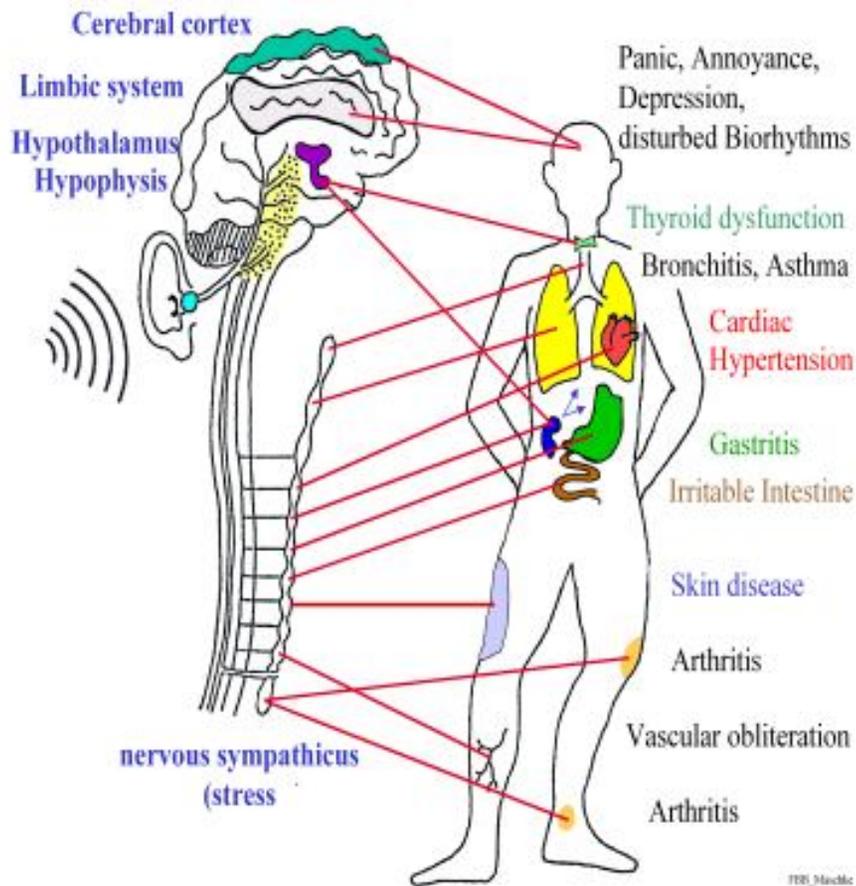
## Managing noise in the EU: current and upcoming challenges



**Colin Nugent**  
The Future of EU Noise Policies  
25 May 2011  
Brussels

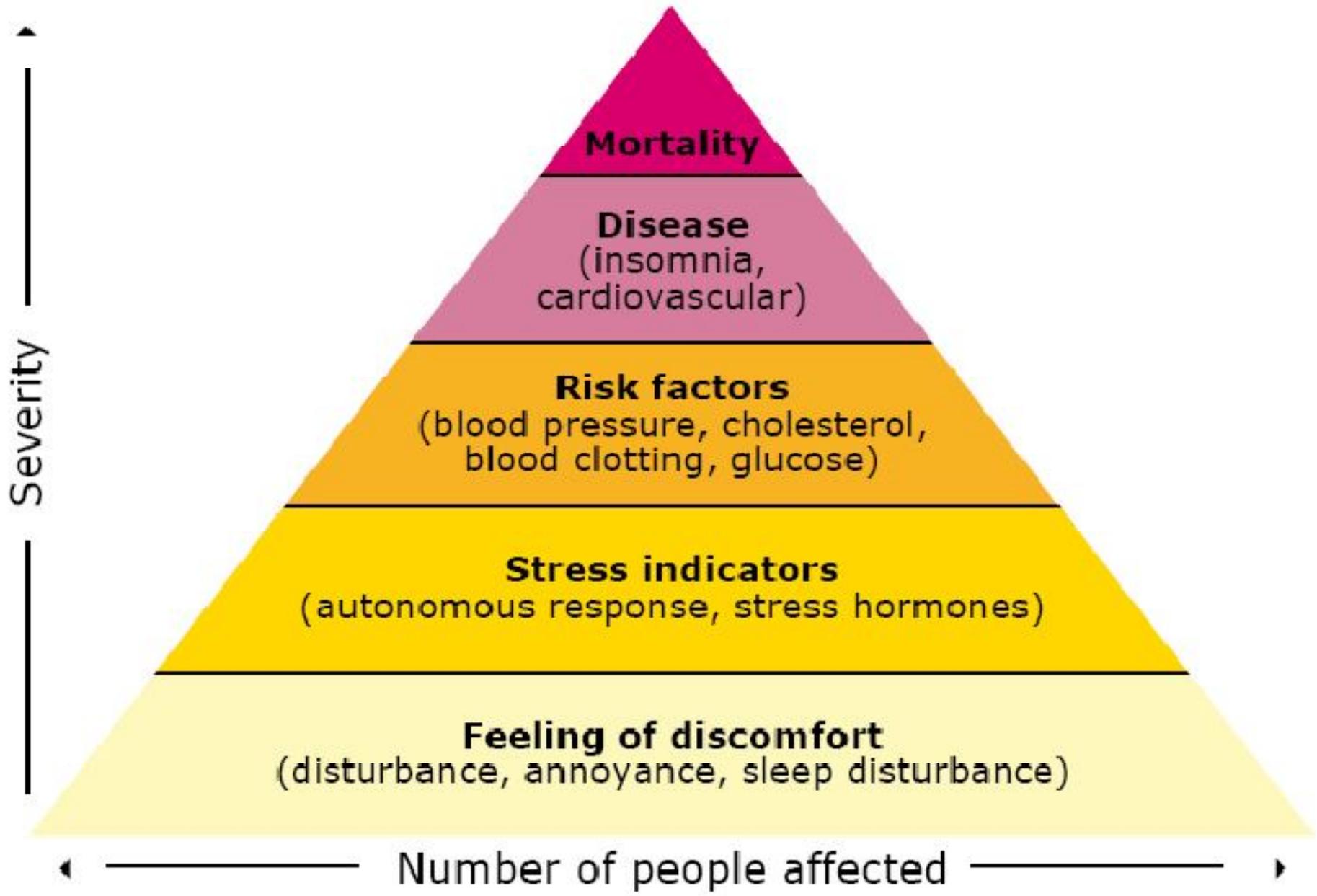


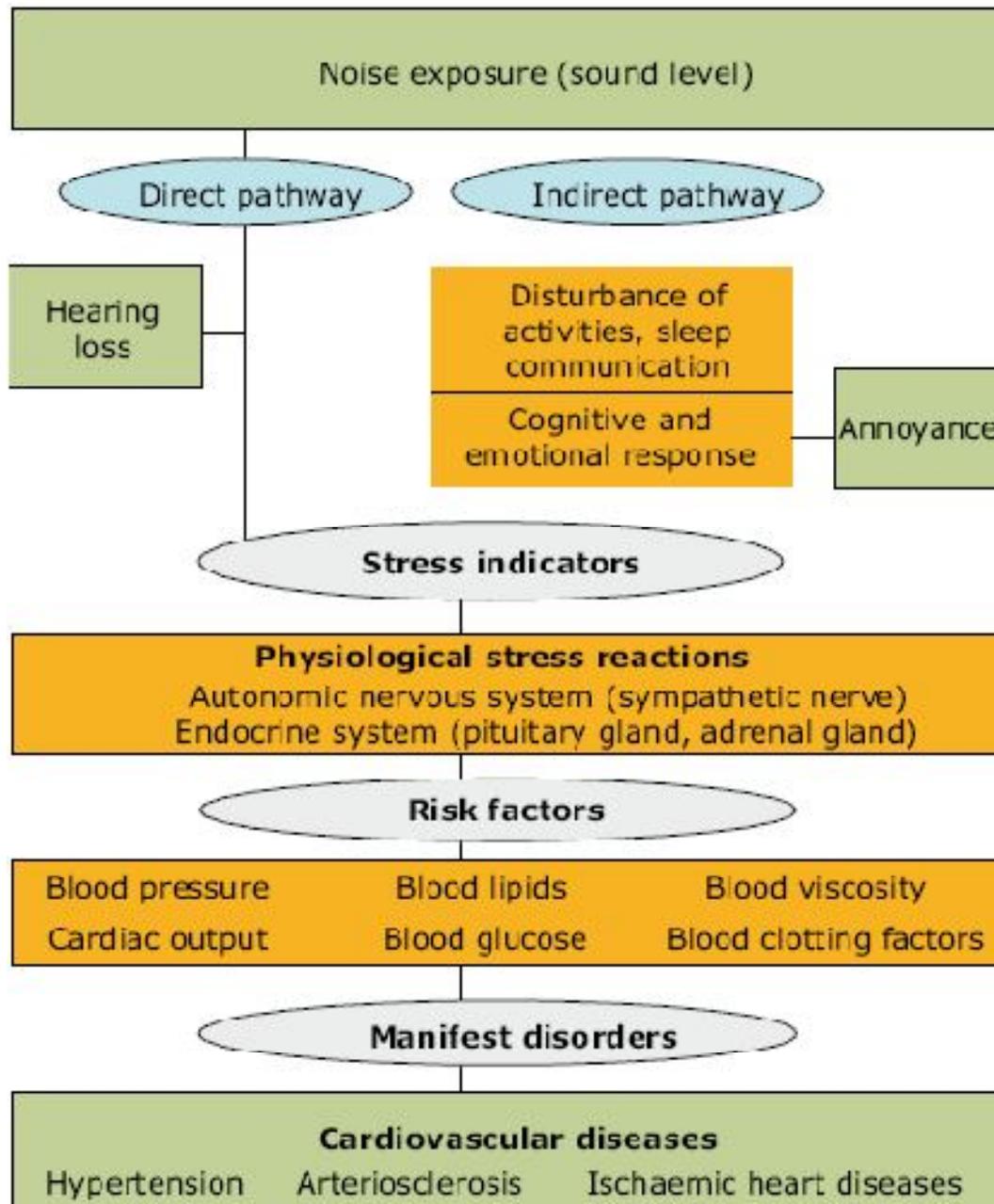
# Why is noise a problem?

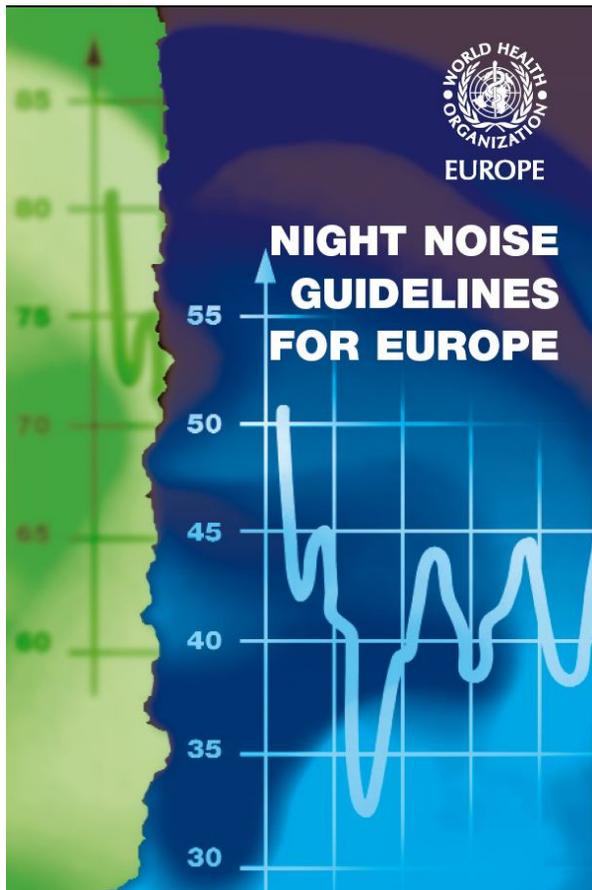


- **Acute effects occur when activities such as concentration, relaxation or sleep are disturbed.**
- **Even subjects living for many years in exposed homes show physiological stress reactions.**
- **During sleep no complete habituation takes place. Even subjects who are subjectively disturbed by the noise show acute physiological reactions to single noise events.**









## Recommended night noise guidelines for Europe – published 8<sup>th</sup> October 2009

Night noise guideline (NNG)

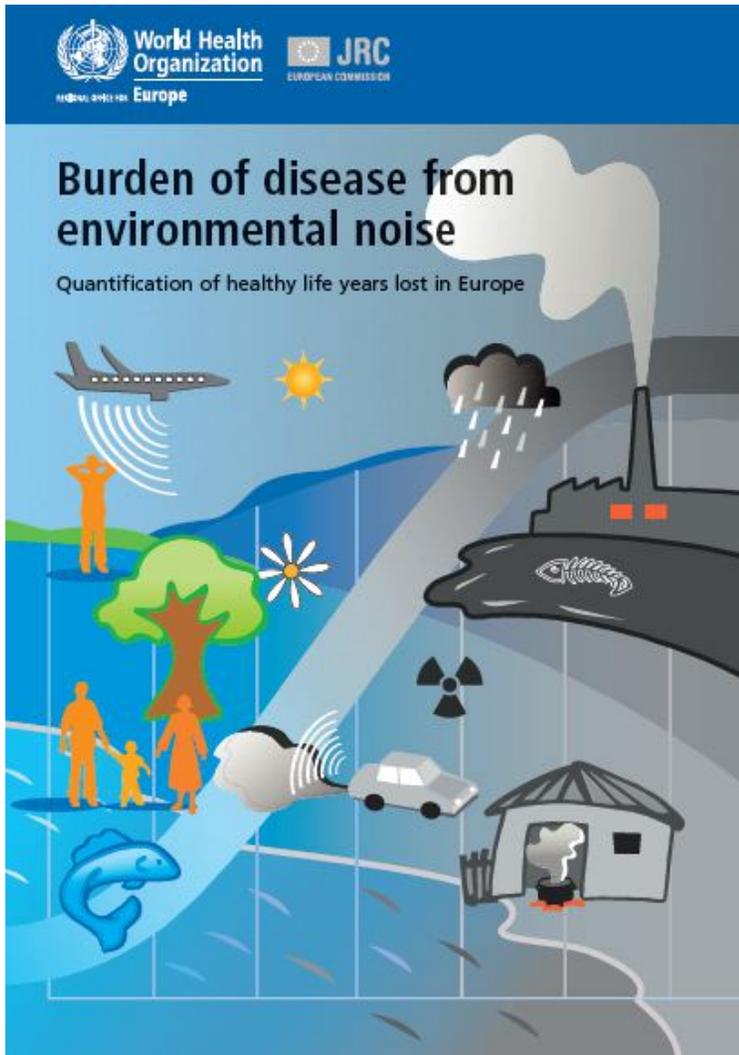
$$L_{\text{night, outside}} = 40 \text{ dB}$$

Interim target (IT)

$$L_{\text{night, outside}} = 55 \text{ dB}$$



# EBD - Disability Adjusted Life Years



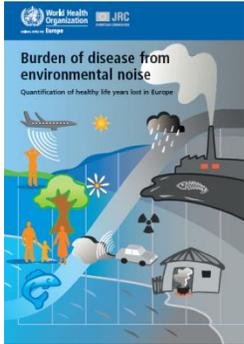
Published by WHO

30<sup>th</sup> March 2011

$$\text{DALY} = \text{YLL} + \text{YLD}$$

YLL = ND (number of deaths) x DW (disability weight) x LD (standard life expectancy at age of death in years)

YLD = NI (number of incident cases) x DW (disability weight) x LI (average duration of disability in years)



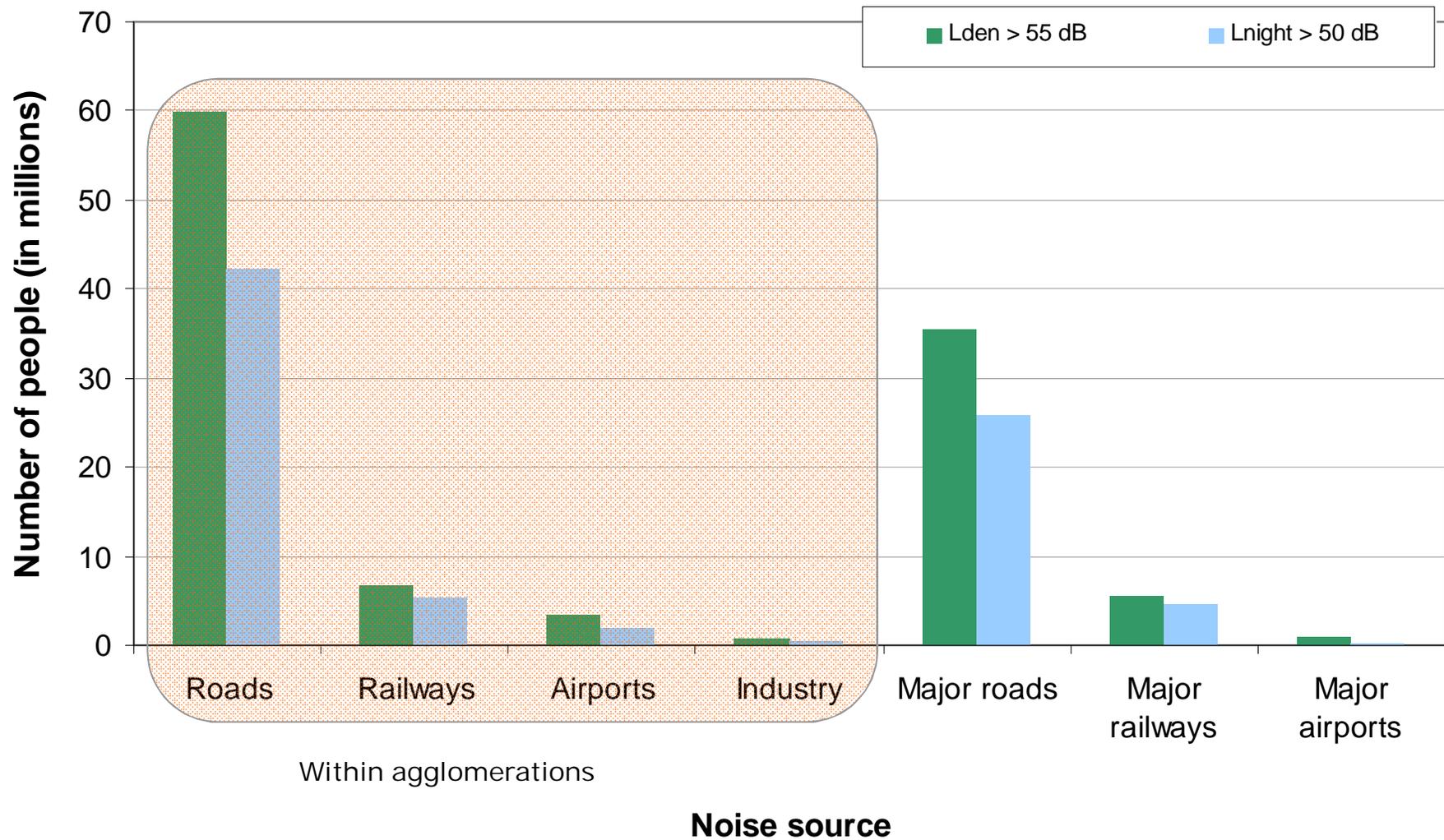
# Burden of disease in Europe

Effect	DALY
Cardiovascular Disease	61 000
Sleep Disturbance	903 000
Annoyance	654 000
Tinnitus	22 000
Children's Cognitive Impairment	45 000



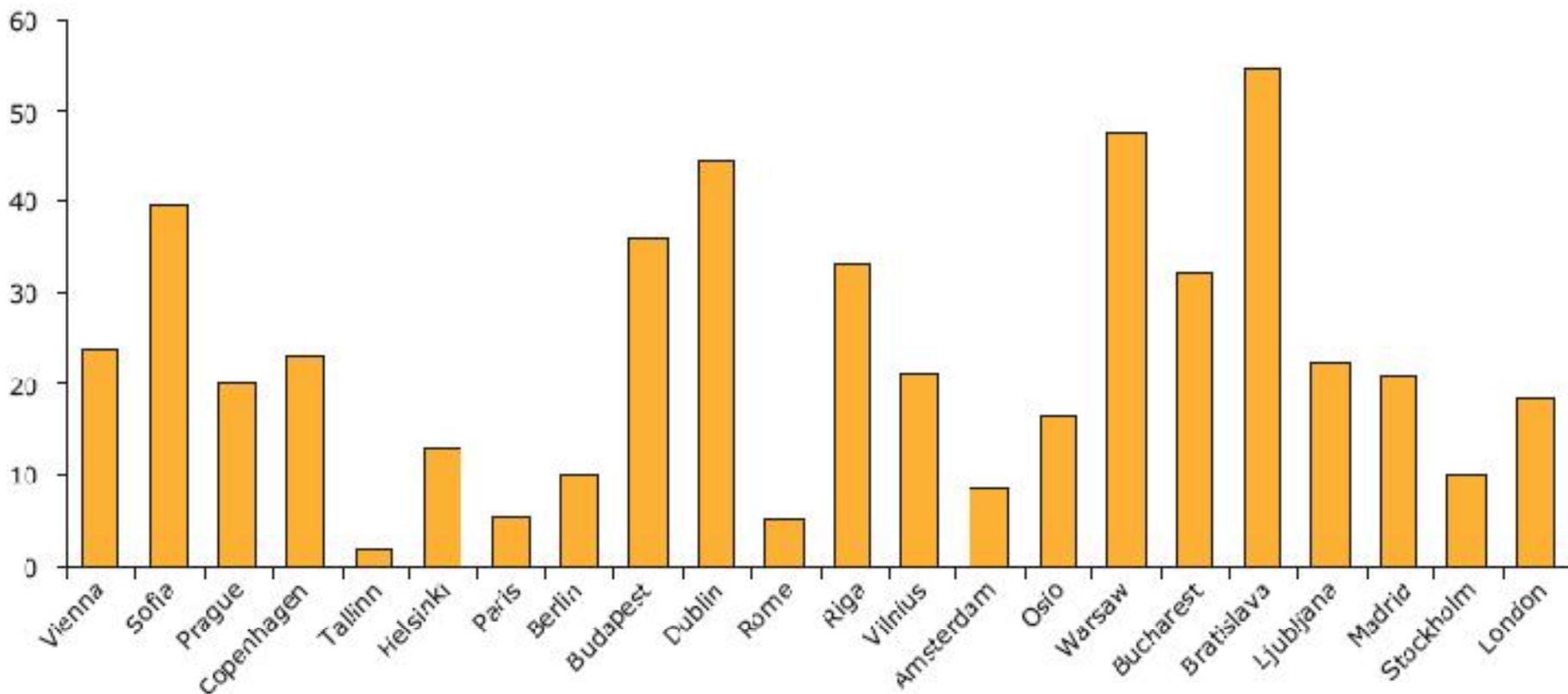


## Number of people exposed to noise in Europe (including NO & CH)



**Figure 2.2** Percentage of people exposed to levels above the WHO interim target for night-time noise in Europe from road transport (> 55 dB  $L_{night}$ )

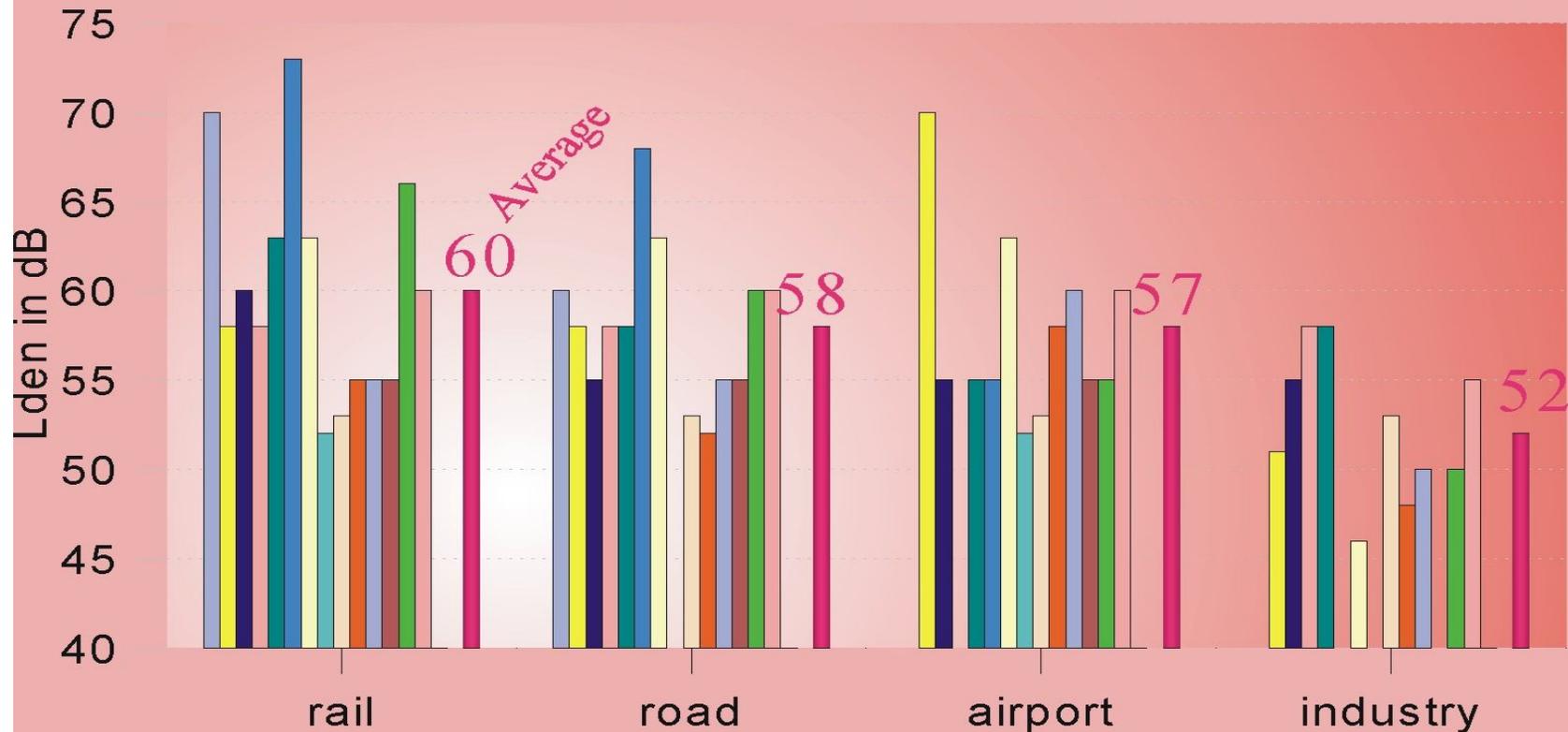
% population exposed to  $L_{night} > 55$ dB



# Noise limits across Europe

## Lden planning values for residential area

*As reported by 14 MS's*



Good practice guide on noise exposure  
and potential health effects

ISSN 1725-2237



- Published 10<sup>th</sup> November 2010
- Link between current knowledge and the requirements of action planning
- <http://www.eea.europa.eu/publications/good-practice-guide-on-noise>

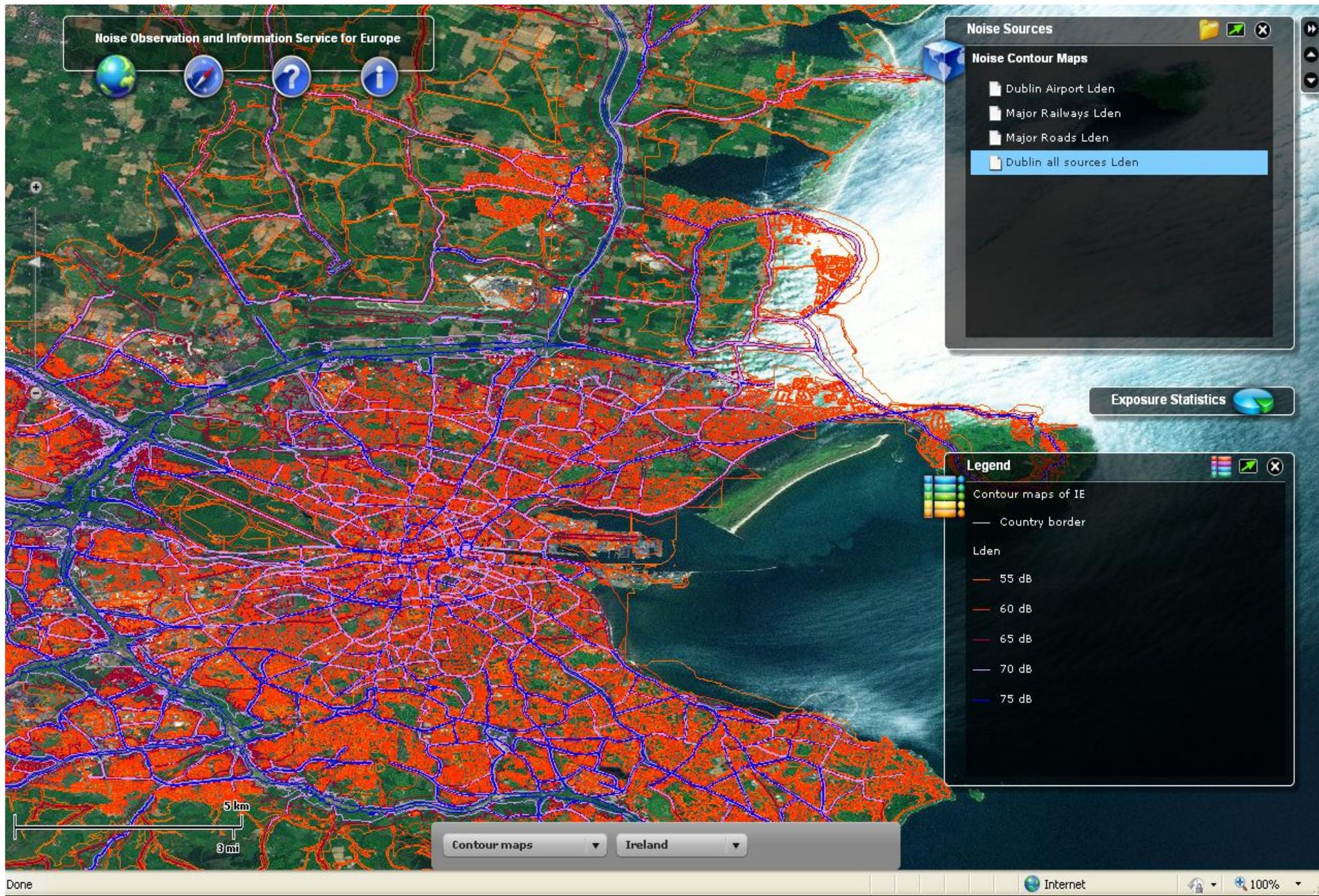


# DALYs or Dollars?

## Common procedures for assessment of benefits

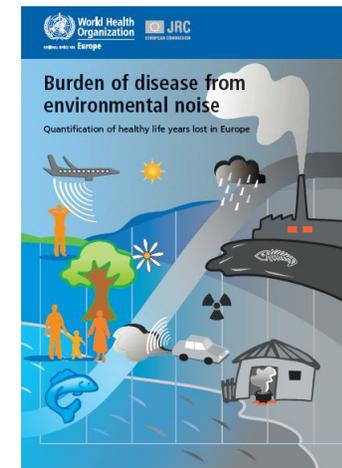
- Contingent valuation (willingness to pay)  
Benefit of 25 € per household per decibel per year above noise levels of 50-55 dB  $L_{den}$   
(Example tyre noise study: quieter tyres could produce benefits to the public of about 48 and 123 billion €)
- Hedonic pricing  
Data from real estate market; lower value of properties exposed to higher noise levels. Best estimate: House prices lose 0.5% (range: 0.2% - 1.5%) of their value per decibel over 50-55 dB  $L_{den}$





# END or beginning?

- CNOSSOS - EU
- Review is an opportunity
- How will health evidence be considered?
- Noise maps II in 2012
- Relation with other policies?  
vehicles, tyres, airports,  
air quality.....



### DECLARATION BY THE COMMISSION

#### in the Conciliation Committee on the Directive relating to the assessment and management of environmental noise

The Commission takes note of the text agreed for Article 1(2) of the Environmental Noise Directive by the members of the Conciliation Committee for the European Parliament and the Council.

The Commission considers that legislative proposals to reduce noise emissions from all major sources should be made on the basis of robust evidence supporting such proposals. This is in line with the 'knowledge-based approach' for policy-making as proposed in the Sixth Environment Action Programme (COM(2001)31) and approved by the European Parliament and the Council.

In this regard, the reports required from Member States under the Directive on the basis of harmonised noise indicators will be an essential element. The provision of such data across the Community will allow the impact and benefits of possible measures to be properly assessed prior to presenting Community legislative proposals.

Therefore, and in accordance with the Treaty establishing the European Community, the Commission will evaluate the need to come forward with new legislative proposals, reserving its right to decide as and when it would be appropriate to present any such proposals.

This is consistent with the Commission's right of initiative, as laid out in the Treaty, while the requirements of Article 1(2) relating to the submission of new proposals within a fixed time frame appear to be prejudicial to this right.

