

# "BUY-QUIET 2011" I-INCE Symposium

*Report for Internoise 2011*

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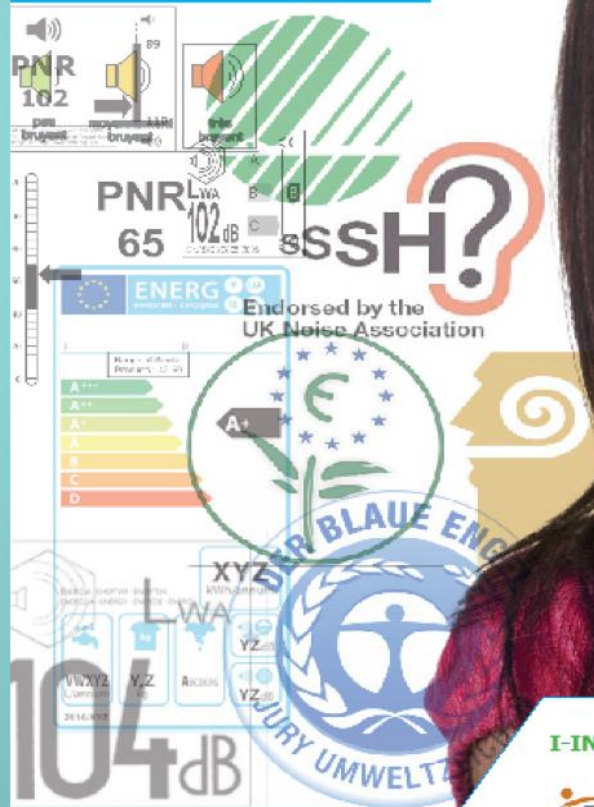


# BUY QUIET 2011



**i-ince**  
INTERNATIONAL INSTITUTE OF NOISE CONTROL ENGINEERING

Paris, 5-6 July



I-INCE Symposium organised by INCE/Europe



# "BUY-QUIET 2011" I-INCE Symposium

- Over 100 delegates from 18 countries
- 40 presentations in
- 10 sessions and discussion periods

**"BUY-QUIET 2011"  
I-INCE Symposium**

**SESSION REPORTS**

# **SESSION REPORTS**

- 0) INTRODUCTION TO THE TOPIC**
- 1) INCENTIVES TO DEVELOP BETTER PRODUCTS:  
FROM ENERGY LABELS TO NOISE LABELS**
- 2) HOW DEVELOPING AND PROMOTING LOW-NOISE  
PRODUCTS CAN BOOST MARKET SHARE AND  
PROFITABILITY FOR MANUFACTURERS**
- 3) PROVIDING INFORMATION ON PRODUCT NOISE EMISSION:  
EXISTING PRACTICES AND THEIR LIMITS**
- 4) NEW CONCEPTS FOR SIMPLIFIED NOISE RATING**

# SESSION REPORTS

- 5) THE NEED FOR AND THE ESTABLISHMENT, UPDATE, AND CREDIBILITY OF “RANGE OF LEVELS” DATABASES
- 6) EXAMPLES OF CURRENT NOISE DECLARATIONS AND HOW THEY ARE BEING IMPROVED
- 7) ENDORSEMENT LABELS AND HOW THEY COULD BE COMBINED WITH NOISE DECLARATIONS OR NOISE RATINGS
- 8) ENCOURAGING ALL PURCHASERS TO BUY QUIET
- 9) ROLES STAKEHOLDERS CAN PLAY IN FOSTERING “BUY-QUIET” ATTITUDE

# INTRODUCTION TO THE TOPIC

- The most efficient and inexpensive approach to **making our world quieter** is to **reduce sound at its source** and to use quieter vehicles, machines, and products.
- In addition to the domain of transportation, **quieter products should be developed for** most other domains of application (at home and during leisure, at work and in industry).
- The **reduction goal** for many products should be **10 dB or more and not 3 to 5 dB.**

# 1) INCENTIVES TO DEVELOP BETTER PRODUCTS: FROM ENERGY LABELS TO NOISE LABELS

- Several **political instruments** can be used to **improve the « green » performance of products** including energy efficiency as well as low-noise emission.
- **The energy labeling** introduced for household appliances in Europe **has dramatically improved product performance** in less than 2 decades.
- **Labeling and related competition** induces the development of better products on the market.
- **Market surveillance** is essential to avoid unfair competition from « free riders ».



## 2) HOW DEVELOPING AND PROMOTING LOW-NOISE PRODUCTS CAN BOOST MARKET SHARE AND PROFITABILITY FOR MANUFACTURERS (1)

- **Quieter products are technically achievable** for most domains of application (home, leisure, work, industry). They are generally more energy efficient and not necessarily more expensive.
- Such products **have been successfully developed in key sectors** like household appliances (washing machines and dishwashers), HVAC (air conditioners), garden equipment (chainsaws, leaf blowers), air compressors and tools, sometimes with reductions over 10 dB.

## 2) HOW DEVELOPING AND PROMOTING LOW-NOISE PRODUCTS CAN BOOST MARKET SHARE AND PROFITABILITY FOR MANUFACTURERS (2)

- However, **developing and promoting low-noise products is not a priority for other manufacturers** and the number of remaining noisy products impacting our lives is still quite large.
- **Some industries**, having developed low-noise products, **do not use this feature** in their promotional material. In some branches, there is a tacit agreement between manufacturers not to compete on that point and only to comply with mandatory limits, which do not stimulate competition to produce quieter products.

## 2) HOW DEVELOPING AND PROMOTING LOW-NOISE PRODUCTS CAN BOOST MARKET SHARE AND PROFITABILITY FOR MANUFACTURERS (3)

- **Incentive programmes** have been successful and awareness of purchasers and users that **low-noise products are available** is important for demand.
- Well-targeted incentives and advertising campaigns involving relevant parties are essential for success. Legislation can also play a role.
- Product images need to be managed, for example, advertising 'silent power' instead of 'noisy power.'

### 3) PROVIDING INFORMATION ON PRODUCT NOISE EMISSION: EXISTING PRACTICES AND THEIR LIMITS (1)

- There are **two main ways to provide information** about product noise, depending on the type of product and on the potential purchaser or user:
  - ***The classical product noise declaration*** dedicated to specialists in the product line or noise control engineers
  - ***A simplified noise rating*** dedicated to non-specialists but adapted to all purchasers to enable them to compare products of the same type

### 3) PROVIDING INFORMATION ON PRODUCT NOISE EMISSION: EXISTING PRACTICES AND THEIR LIMITS (2)

- The **noise declaration approach** has been used in procurements rather successfully, but it **has found its limits** in several domains due to a **global lack of understanding** by manufacturers, suppliers, and potential users who have difficulties with the complexity of the dB scale and frequency dependence and are confused between sound power and sound pressure levels.
- A strong and detailed regulation on the declaration of noise emission values has been enforced in the EU for many years for a wide variety of professional products with accompanying measurement standards. However, with few exceptions, the strategy does not work as it should; and **the quality of noise emission declarations is poor..**

## 4) NEW CONCEPTS FOR SIMPLIFIED NOISE RATING (1)

- **Noise information is neither understood by the public nor widely available to them.** There is also a global lack of understanding by manufacturers, suppliers, and users.
- **Existing noise ratings are too complex to be understood by the public and thus should be complemented by simplified labeling.**
- Information should be presented in a **comparative way**, and one should be able to distinguish a low-noise product from a product that just complies with the upper limit required.

## 4) NEW CONCEPTS FOR SIMPLIFIED NOISE RATING (2)

- Two **simplified product noise rating methods have been proposed** that provide noise level information to the public in a manner that is easy-to-understand but includes enough information to allow them to make informed purchasing decisions.
- They answer the two key questions from the consumer: **“How loud is this product?”** and **“How loud is this product compared to other similar products?”**

## 5) THE NEED FOR AND THE ESTABLISHMENT, UPDATE, AND CREDIBILITY OF “RANGE OF LEVELS” DATABASES (1)

- It is necessary to **get information on the range of levels of similar products** whose span is sometimes over 20dB for helping the purchasers in their choice and as an incentive for manufacturers to lower the noise levels of their products.
- **Establishing databases and range of levels** for all products is an ambitious goal but it has already been done in the past for various types of products such as machine tools and machines used outdoors.
- The provision of noise emission declarations is a **legal obligation every machine manufacturer has to observe**. However, practice shows that the quality of the information given on noise emissions is generally not only poor but lacks data on the range of values for the relevant machines.



## 5) THE NEED FOR AND THE ESTABLISHMENT, UPDATE, AND CREDIBILITY OF “RANGE OF LEVELS” DATABASES (2)

- The **position of the noise emission value** of a machine within the representative range of values for this kind of machine **is more important than the value itself** as it gives the real noise emission quality of the respective machine.
- Test code writers of a noise standard should insert a survey of the noise emission distribution for the machine covered by the standard.
- Databases on the noise from different machines may be helpful for giving consumers an impression of what the given dB(A) values really mean as demonstrated in the NIOSH database on the sound of handheld tools.

## 5) THE NEED FOR AND THE ESTABLISHMENT, UPDATE, AND CREDIBILITY OF “RANGE OF LEVELS” DATABASES (3)

- Member states are responsible for the quality of the noise emission data given to the EU commission to be inserted into the Outdoor Machinery Directive database.
- The **credibility of information provided in the databases is crucial** and relies on measurements performed by well-equipped laboratories and competent staff, correct declarations, permanent market surveillance, and most importantly on the use of commonly-agreed-to methods or standards.
- Further noise emission limits for new machines under the Outdoor Machinery Directive can only be set if the social and economic impact is considered.

## 6) EXAMPLES OF CURRENT NOISE DECLARATIONS AND HOW THEY ARE BEING IMPROVED

- There has been **much effort made to develop new energy performance levels of household appliances** resulting in the use of an open-ended scale. A new EU label for the performance of household appliances including noise data is mandatory from 2011.
- The previous version allowed some manufacturers to 'cheat' by using sound power rather than sound pressure in their noise declarations; the procedure for the new declaration has been carefully defined to prevent this.
- Consumer organisations use a number of different non-standard subjective tests that are not always representative of product performance.

## 7) ENDORSEMENT LABELS AND HOW THEY COULD BE COMBINED WITH NOISE DECLARATIONS OR NOISE RATINGS (1)

- **Endorsement** or «**eco**» **labels** intended to signify “**environmental acceptability**” of a product, may include product noise level in addition to power consumption, hazardous substances, and electromagnetic emissions.
- **Over twenty labels exist** on the international scene. To qualify for such a label, the product must meet *all* of the criteria specified for this label.
- From a perspective of encouraging low-noise products, there are several deficiencies as only a few product groups are covered and **only a few of the labels include product noise levels**.

## 7) ENDORSEMENT LABELS AND HOW THEY COULD BE COMBINED WITH NOISE DECLARATIONS OR NOISE RATINGS (2)

- The German «Blue Angel» has been extremely successful in promoting competition. However, a product with very low noise emissions would not be awarded the Blue Angel if even a single non-noise criterion failed to be met and there is no explicit declaration of the actual noise level.
- More **specific labels only endorsing quiet products have been developed by national NGOs or institutions**: the ssSH Mark and Quiet Mark initiative in the UK, the Golden Decibel Award in France.
- Such awards do not disclose the actual noise level of the product and no formal criteria exist for setting up the award.

## 8) ENCOURAGING ALL PURCHASERS TO BUY QUIET (1)

- **The « Buy-Quiet » concept was initially developed in the USA** for noise control in industry through a comprehensive program applicable to NASA facilities and promoted in other branches of government via NIOSH. It is also used or **being developed in Europe for the management of occupational noise risks** through the selection of low-noise machines and tools by HSE, BAuA and INRS.
- In many situations, the purchase of low-noise products is the result of negotiations between buyer and seller and, globally, a significant improvement in the offer of low-noise machines.

## 8) ENCOURAGING ALL PURCHASERS TO BUY QUIET (2)

- **The extension of the « Buy-Quiet » concept to all the products used by the public** should lead to a better awareness in the choice and consequently in the availability of quieter products.
- However, the « **Buy-Quiet** » concept does not seem to be currently widely accepted even in the noise control community where it should become a major motivation for R&D and consulting.
- **Developing a « Buy-Quiet » attitude in product purchasers and consumers is a very ambitious challenge that involves stakeholders who would benefit from it.**



## 9) ROLES STAKEHOLDERS CAN PLAY IN FOSTERING “BUY-QUIET” ATTITUDE (1)

- The interest in the noise issue among **municipal authorities** as it relates to equipment used on city streets, varies greatly from city to city and country to country.
- The EU Public Procurement Directive encourages **European authorities** to ask for “green” products that go beyond legal compliance in order to increase competition. The **IT industry** has responded with “The Eco Declaration” which sets noise requirements for IT products in European public tenders.
- Means for raising awareness of the noise issue and getting the word out rely more and more on **media and social networks**. **Working with industry and manufacturers** to make business cases for the new “quiet” market should be strongly encouraged .



## 9) ROLES STAKEHOLDERS CAN PLAY IN FOSTERING “BUY-QUIET” ATTITUDE (2)

- Consumers rely largely on the advice or information provided by their retailer when purchasing a product. **Involving the retail sector** in an attempt to have the end consumer purchase quieter machinery will provide a comprehensive benefit for the retailer as well.
- **ISO/TC43/SC1 ‘Noise’** has developed two key standards related to “Buy-Quiet” on noise emission declaration and verification, and comparison of noise emission values. The subcommittee will welcome new work to establish an international consensus regarding new, simple, and user-friendly noise rating scheme

## 9) ROLES STAKEHOLDERS CAN PLAY IN FOSTERING “BUY-QUIET” ATTITUDE (3)

- **Trade associations** can play a key role in providing product noise declarations to purchasers and industry. They are ideally positioned to obtain and provide this information and are well-suited to create the “level playing field” needed to instill confidence in purchasers. .
- Two organizations should be involved in the “Buy-Quiet” campaign. With broad engineering expertise, the CAETS Noise Control Technology Committee backed by an I-INCE panel of experts brings an independent voice and source of information to policymakers of what is technically feasible in reducing the noise emissions of dominant noise sources.

THANK YOU !

**BUY QUIET 2011**

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Paris, 5-6 July

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