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The International Noise Awareness Day (INAD) is celebrated every year in many countries to spread knowledge and awareness on noise exposure in communities and, in particular, in schools. In 2017, the European Acoustics Association (EAA) together with European National Associations of Acoustics organized a series of events aimed to involve young people, classrooms and schools. In this paper the main results of the initiative are shown.

Keywords: noise, awareness, school, participation

1. Introduction

In 2017 a number of events and initiatives for education and awareness-raising in the field of noise have been implemented in European schools under the coordination of the European Acoustics Association (EAA), together with European National Societies of Acoustics, in cooperation with the European Commission (DG Environment), the World Health Organization (WHO) and the European Environment Agency (EEA). In many European countries, local experts and distinguished acousticians cooperated with governments and institutions, universities and schools to produce and distribute accurate and scientifically correct information on the effects of noise.

In the frame of the INAD IN EUROPE program, coordinated by EAA, two pan-European competitions titled "Sounds of my place" for primary and secondary school students from all over Europe have been organized. Sounds and noises that characterize the soundscapes of the everyday life in pupils and students home-places have been painted, described, audio and video recorded, allowing the collection of more than 4000 interesting contribution.

Among the other European initiatives, the cartoon "Noisella in the Sound Space", based on original storyboard, has been produced and distributed.

The authors of this paper are respectively members of the EAA INAD Steering Committee and INAD National Representative for ITALY.
2. **Europe, EAA, and the International Noise Awareness Day**

The Directives 2002/49/EC of 25 June 2002 and 2003/10/EC of 6 February 2003 were issued by the European Commission to deal with problems of noise. In particular Directive 2002/49/EC is applied to environmental noise to which humans are exposed in particular in built-up areas and near transport infrastructures, in public parks or other quiet areas in an agglomeration, in quiet areas in open country, near schools, hospitals and other noise-sensitive buildings and areas in order to control and measure the noise exposure while Directive 2003/10/EC aims at specifying minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents has as its main objective to lay down minimum requirements for the protection of workers from risks to their health and safety arising or likely to arise from exposure to noise and in particular the risk to hearing.

The International Noise Awareness Day (INAD), conceived and organized for the first time in 1996 by the "Center for Hearing and Communication" in the USA, is an opportunity to familiarize children and young people with problems related to exposure to noise and to educate people to listen to sounds.

Every year, around the end of April, in Europe the National Societies of Acoustics, together with other institutions, companies and groups of experts, celebrate the International Noise Awareness Day organizing activities on acoustic issues in many schools, aiming to:

- inform and increase awareness of students and citizens on noise reduction;
- measure and assess noise in schools (indoor and outdoor);
- design solutions for noise mitigation and improvement of acoustic climate
- describe soundscapes in schools, courtyards, playgrounds;
- produce text, drawings, audio and video records for and advertising campaign on noise;
- distribute, collect, analyse questionnaires and interviews about sound quality in schools and in living environments;
- invent new games and activities related to acoustic and noise;
- create links between schools of different cities and countries to share the actions taken.

The activities of the 22nd edition of "International Noise Awareness Day" have been coordinated at European level by the European Acoustics Association (EAA), that includes in its membership societies predominantly in European countries interested in to promote development and progress of acoustics in its different aspects, its technologies and applications. EAA gathers 33 societies of acoustics and serves more than 9000 individual members all over Europe.

The event INAD IN EUROPE covered the entire school year 2016-2017 and was celebrated on April 26th 2017 with the theme "SOUNDS OF MY PLACE", to sensitize children and young people to listen to the sounds that characterize the landscapes of their lives. In figures 1 and 2 the official poster and the official logo of INAD IN EUROPE are respectively shown.
The initiative INAD IN EUROPE was a great success. The EAA Steering Committee (figure 3) has coordinated all the activities, in collaboration with the European Commission (DG Environment). It is composed of five members: Jorge Particio (President of EAA), Michael Taroudakis (Past President of EAA), Brigitte Schulte-Fortkamp (Vice President of EAA), Antonio Perez-Lopez, (Director of the Permanent Office of EAA) and Sergio Luzzi (Product Manager of EAA Documenta Acustica).

The rich program of INAD, carried on at European level, included the following activities.

- The organization and management of two Pan-European competitions for primary and superior schools respectively, involving pupils and students of European schools, invited to produce original audio, video, drawings and texts on the subject “Sounds of my place”: it is still possible to watch all the materials produced by European students for the Pan-EU competitions 2017 on Facebook event “Inad in Europe”;
• The preparation and distribution of two presentations for schools and other organizations (Museums, Cultural centers etc.) around Europe, to be used in systematic courses, workshops and other events organized by the National Societies aiming at raising the awareness of the students and young people about noise effects on health and well-being.
• The production and distribution of the video-cartoon “Noisella in the sound space”, now available on youtube;
• The involvement of the National media in spreading the information on INAD 2017 across the European population as the idea was to have the general population become aware of the noise problems;
• The active participation at the Conference “Noise in Europe”, under the coordination of the DG Environment of the European Commission, held in Brussels (headquarters of the EC) on 24 April 2017, in which, invited speakers to stress out the importance of updating the European legislation and present new findings on health problems due to noise.
• The development of a specific website dedicated to INAD 2017, used as a focal point for the dissemination of information on events.
• The collection and sharing in a specific section of EAA Documenta Acoustica product of the materials produced in the various countries.
• Collaborations with educational agencies and museums throughout Europe aimed at organizing small specialized laboratories, aimed at raising awareness about the effects and risks of exposure to noise.
• Coordination of the dissemination of news via press and dedicated radio and television programs, with the involvement of experts on noise control,

3. The political and social importance of INAD in Europe

In the 2017 edition, coordinated by EAA, the European countries that have joined and actively contributed to the initiatives are: Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, Norway, Poland, Portugal, Slovenia, Spain, Switzerland, the Netherlands, Turkey, Republic of San Marino, United Kingdom.

For each of the above listed countries, one or more national representatives have worked in coordinating the activities at national level, coordinating themselves and with the steering committee. A very well connected network have operated in sharing materials in particular for the management of the competitions.

INAD IN EUROPE was also presented and discussed in the context of the "Noise in Europe" Conference, held in Brussels on 24 April 2017 where the highest authorities in the field of noise control and related risks, including the World Health Organization, discussed environmental noise and the various options for its control and reduction, including citizens awareness and information campaigns.
A special satisfaction was given by the many hundreds of items submitted at the Pan EU Competition from European schools (see some statistics in figure 5). For each country, three finalists, selected by the National Jury, participated at the European final competition and the proclamation of winners was made in June 2017 in the frame of Acoustics 2017 Congress, jointly organized by ASA and EAA in Boston.

<table>
<thead>
<tr>
<th>Country</th>
<th>Individual</th>
<th>Group</th>
<th>Full Class / Full School</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAIN</td>
<td>460</td>
<td>33</td>
<td>13 full classes</td>
</tr>
<tr>
<td></td>
<td>95</td>
<td>64</td>
<td>19 full classes</td>
</tr>
<tr>
<td>TOTAL</td>
<td>555</td>
<td>97</td>
<td>32 full classes</td>
</tr>
<tr>
<td>SLOVENIA</td>
<td>194</td>
<td>4</td>
<td>30 full classes</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3</td>
<td>4 full classes</td>
</tr>
<tr>
<td>TOTAL</td>
<td>197</td>
<td>97</td>
<td>134 full classes</td>
</tr>
<tr>
<td>ITALY</td>
<td>152</td>
<td>8</td>
<td>7 full classes</td>
</tr>
<tr>
<td></td>
<td>289</td>
<td>8</td>
<td>15 full classes</td>
</tr>
<tr>
<td>TOTAL</td>
<td>441</td>
<td>16</td>
<td>22 full classes</td>
</tr>
</tbody>
</table>

Figure 5 – Some statistics about participants at EAA INAD 2017 Pan European Competition
Another considerable success was given by the many contacts registered by the INAD IN EUROPE pages on social media and by the high appreciation of the short film “Noisella in the Sound space”, downloaded many times and watched in many congress, seminars, lessons around Europe.

A new film with a selection of material produced by European pupils and students in the frame of the Pan European Competition “Sounds of my place” is under construction: soon it will be available.

Figure 6 – EAA INAD 2017 in Social Networks: Linkedin and Facebook

4. Conclusion

Noise is a major factor determining the quality of life. It causes stress, hearing loss and a series of other sub-effects which deteriorate the quality of life and the expected duration of it.

During the last years, legislation makers and individuals have accepted the fact that measures should be taken to reduce noise as a by-product of an industrial society and to conduct additional studies to determine the acceptable levels of noise exposure in the everyday life. In other words most people have realized that the soundscapes of our living quarters should change in order to become more friendly to the human being and not only.

In Europe, despite the existence of the Directives and the trend of the European Countries to take measures aiming at controlling the noise exposure, the individuals are not fully aware of the risks of their exposure to noise and they are not, as a group, determined to take all the necessary actions to reduce noise in its origin. In other words there is a need for further collaboration between legislation makers and the individuals in order to achieve the goal of a quieter world.

In this scenario, the International Noise Awareness Day initiatives can give a relevant contribution. The INAD IN EUROPE experience, developed by the European Acoustics Association in 2017, represent a clear confirmation of this concept and a good and concrete example of how much the international coordination can maximise the result of awareness campaigns.