

## Outlines of ICBEN

### THE COMMISSION, THE CONGRESSES AND THE INFLUENCE OF HENNING VON GIERKE ON NOISE EFFECTS RESEARCH AND PUBLIC NOISE POLICY

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#### 1 THE COMMISSION

Prof. Dix Ward organized the 1<sup>st</sup> National Conference on Noise as a Public Health Hazard in Washington/DC, USA and the 2<sup>nd</sup> Congress on “Noise as a Public Health Problem” in Dubrovnik/Yugoslavia, May 1973. On occasion of the 2<sup>nd</sup> congress Prof. Gerd Jansen conceived the idea of ICBEN.

In a special meeting during the congress I proposed the audience the foundation of an institution uniting worldwide all experts in research and all important decision - makers in the broad fields of noise impacts on human beings. This proposal was vigorously supported by two outstanding experts: by the organizer of the Dubrovnik congress and of the First National Conference on Noise as a Public Health Hazard (Washington 1968) Prof. Dix Ward and by Dr. Jerry Tobias. A fair discussion on the advantages and possible disadvantages resulted finally in the founding of ICBEN. Gerd Jansen was elected as Chairman of ICBEN, Dix Ward Co-chairman and as Secretary Jerry Tobias, who later established the Constitution of ICBEN which since then is working well.

Sceptical arguments and sceptics against the founding of ICBEN based on the wrong idea that the new body should be an additional scientific society among others with annual meetings but special main focuses and emphasis. But, while preparing the inaugurating assembly the triumvirate – Gerd Jansen, Dix Ward and Jerry Tobias – developed the conception of five years periods to convene experts *presenting only valid, reliable and proven results of noise research that are suitable for national and supranational bodies for their administrative and/or their legislative work.*

You remember the time around 1968–1973 when the measurements, evaluations und calculations of scientific tests were not computer–aided and therefore time–consuming. ICBEN was never interested in quick spectacular gains of results but only in proven results. Therefore the five-years-period seemed adequate.

But already during the Freiburg Congress 1978 the discussion of shorter periods came up and was repeated during the following years up to now. In the last few months the discussion was intensified by the fact that within 2008 several conventions and congresses with relation to noise problems took place. Financial restrictions and the different emphases of institutions might have prevented highly interested experts to join all conventions

I think the length of the period between two congresses is worth while being discussed during the coming Business Meeting and being decided and executed by the Executive Board of ICBEN.

Deduced from the conception of ICBEN the “triumvirate” proposed the name *“International Commission”*. The sceptics again opposed asking: “By whom are you commissioned?” The answer was that we offer our results and our active cooperation to in-

terested institutions like WHO, ICA, Governments etc. In the past 35 years as an organisation we notice that numerous and outstanding representatives of these institutions mentioned took part in our congresses not only as participants but mainly as keynote speakers or representatives of their institutions.

## 2 THE CONGRESSES

As mentioned above the inaugurating assembly of ICBEN took place at the Dubrovnik Congress 1973 which was the “2<sup>nd</sup> International Congress on Noise as a Public Health Problem”. The preceding (first) congress was the “First National Conference on Noise as a Public Health Hazard with International Experts” in Washington, DC, 1968. The organizer was Dix Ward, among the experts Gerd Jansen reported on the effects of noise on physiological extraaural functions. This research field developed to an increasing importance for physical health as well as for noise – induced annoyance. The Dubrovnik congress was summarized at its end by Ira Hirsh.

After the Dubrovnik congress the elected (first) chairman Gerd Jansen organized the “3<sup>rd</sup> Congress on Noise as a Public Health Problem” 1978 in Freiburg/Germany. Figure 1 shows the logo of ICBEN on the cover side of the Preliminary Program. The logo of ICBEN was designed by Jerry Tobias.



**Figure 1:** International Commission on Biological Effects of Noise (ICBEN) - International Noise Teams

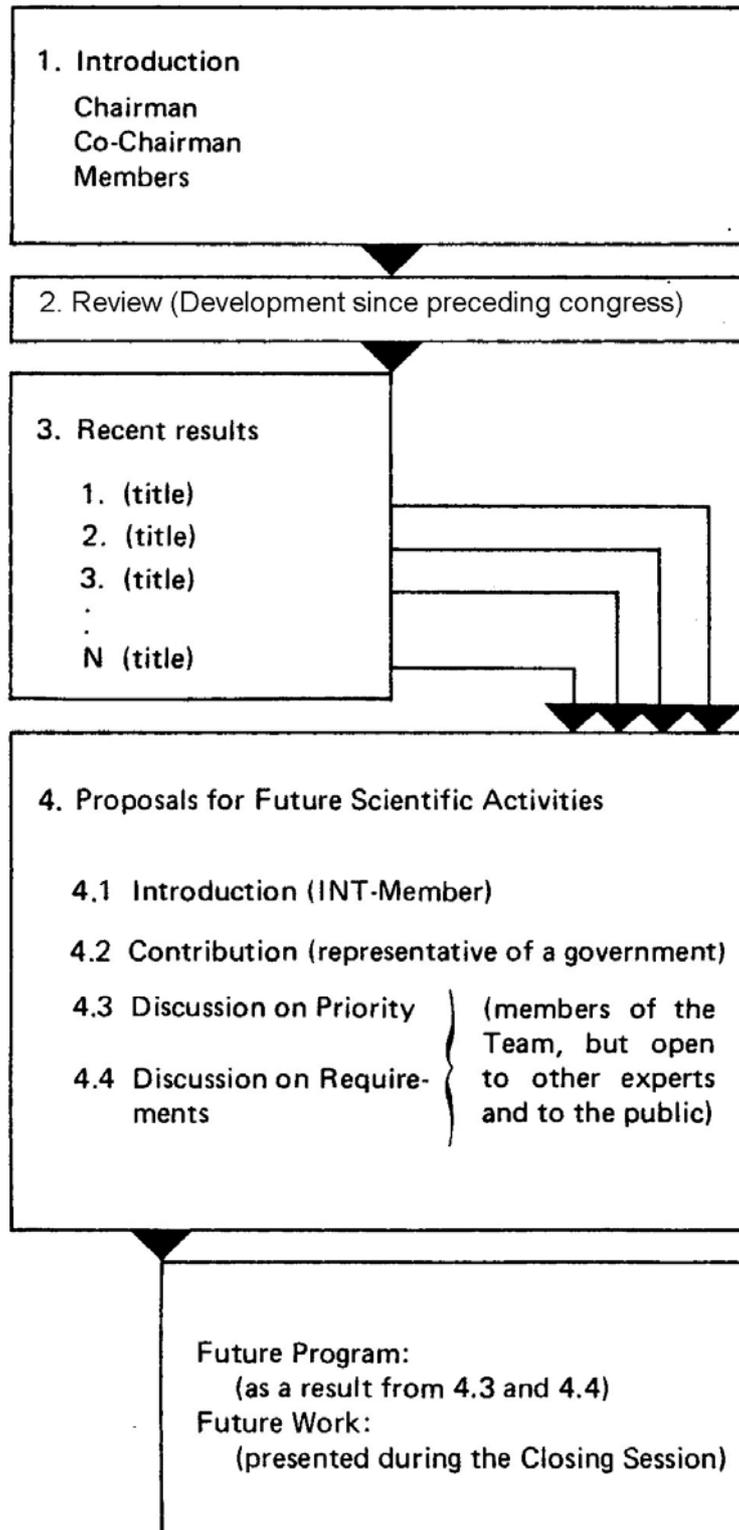
Simultaneously with designing the logo Jerry Tobias established the Constitution which is putting in order the structure and the procedures of ICBEN. The leading idea within ICBEN and the intention of the congresses refers to a complete knowledge of all results of noise effects on human beings as a unity. This means that parallel sessions during the congress should be avoided. By this, every participant of the congress could have an overview of the present state of knowledge concerning all noise effects on human health.

Each of the single teams of ICBEN is responsible for the invited experts and the sequence of papers. But, each team session is to run according to a schedule as it is shown in Figure 2:

Team 1	Noise Induced Hearing
Team 2	Noise and Communication
Team 3	Non-Auditory Physiological Effects Induced by Noise
Team 4	Influence of Noise on Performance and Behaviour
Team 5	Noise disturbed Sleep
Team 6	Community Response to Noise
Team 7	Noise and Animals
Team 8	Effects of Interactions between Noise and Physical or Chemical Agents
Team 9	Regulations and Standards

**Figure 2:** Schedule for Team Sessions

Each Team Session should run according to the following schedule :



**Figure 3:** List of the teams

The above mentioned Teams are still existing. They are working more or less strictly according to the given directives (see Figure 2). Many difficulties have risen with Team 8. Interactions with other Teams have been occurred very often. During the Planning Meeting this problem was discussed intensively. The participants decided to

propose to the business meeting of this congress to cancel team 8. Simultaneously it was decided to propose to name team 9 into "Noise Research and Noise Policy"

Each congress is containing Opening and Closing Sessions. Especially in the Opening Session contributions from National and International Institutions are occurring. The next Figure 4 from the Freiburg Congress (1978) shows the order of the agenda for the closing session. The contributions in the closing sessions are the reports of the Chairpersons of the single noise teams, a short discussion on the chairpersons reports and the conclusion for future work.

2,30 p.m. **Closing Session: Assessment of Achievements, Requirements and Priorities**  
Chairman: v. Gierke  
Co-Chairman: Jansen  
Members: Participants of the Introductory Session

**Contributions:**  
Reports of the Chairmen of the 8 Teams on Priorities and Minimal Requirements for Future Programs in the single areas.

**Discussions on the Chairmen's Reports**

**Conclusions for Future Work:**  
Congress Achievements and Realization Probabilities of Scientific Research: v. Gierke

**Congress Summary:** Kryter

6,00 p.m. End

**Figure 4:** Agenda of the Closing Session at the Freiburg Congress 1978

At the very end of each congress the *Congress Summary* is a constant factor of all congresses. In 1983 (Congress in Turin) congress summarizer Gerd Jansen went the following week to the ICA congress in Paris in order to open this Congress with the Summary of the Turin congress representing the recent state of knowledge of noise effects on human health. Five years later the summary of the Stockholm congress was done again by Gerd Jansen who went three days later to Avignon / France where the Internoise Congress took place. The Stockholm Summary was the Introductory Speech at Avignon.

### 3 THE INFLUENCE OF HENNING VON GIERKE ON ICBEN

On occasion of the 5<sup>th</sup> congress at Stockholm / Sweden 1988 which was opened by his Majesty The King Gustav XVI Karl the chairman Henning von Gierke and the Executive Committee took part in a reception of the King. In the discussion with the King Henning underlined the political importance of the protection of human beings from health endangering noise. He pointed out that ICBEN is offering its scientific knowledge to all political and administrative institutions and bodies on national and international levels.

The need for taking more attention to political and administrative questions of noise influences on human beings is caused by a change of the contents of research. For instance, research of sonic boom effects as it was done in the past had no longer any priority whereas experimentally-based epidemiological investigations show an increasing importance.

In the course of the meeting at the Stockholm congress and by the initiative of Henning von Gierke a new team 9 was founded for "Regulations and Standards". Gerd

Jansen was elected Team Chair 9 and Dr. Bernd Rohrmann Co-Chair. During the Sydney Congress 1998 Larry Finegold was elected chairman, Carl Oliva (Switzerland) and Jacques Lambert (France) were the co-chairs. At the Rotterdam Congress 2003 Martin van den Berg (The Netherlands) succeeded Larry, but resigned in 2007 from his chairmanship, so Larry with Oliva and Lambert as co-chairs continued up to the coming elections of team chairpersons here in Mashantucket.

In the following congresses at Nice / France 1993, Sydney / Australia 1998 and Rotterdam 2003 the contributions of the members of this team 9 showed an increasing importance. Especially WHO practised a fruitful cooperation by establishing noise related documents by working together with members of ICBEN. Henning, too, contributed to the themes of team 9 by publishing suitable transactions. Among his publications you can find a title like "How much is too much?". This article is expressing exactly the intentions of ICBEN's team 9: Transfer of scientific results into regulations for the community.

During the Planning Meeting for this Congress on July 29 -31, 2007 it was decided to recommend in the business meetings of ICBEN a change of the name of team 9 from "Standards and Regulations" into "Noise Research and Noise Policy" as the results of noise research are getting more and more important for the communities.

Also, in the Planning Meeting it was decided to recommend to the coming business meetings here in Mashantucket to cancel team 8. The combined effects of noise and other agents are interfering with many other research projects of the different teams of ICBEN. We regret that we cannot ask Henning to know his opinion.



**Figure 5:** Henning von Gierke

#### **4 DEDICATION OF THE 9<sup>TH</sup> ICBEN CONGRESS TO HENNING VON GIERKE**

The preceding chapters have been established containing among others also a special view on Henning's activity within ICBEN. He promoted vigorously our activities.

Henning Edgar von Gierke, born on May 22, 1917 in Karlsruhe / Germany studied Electrical Engineering and Acoustics at Karlsruhe and Munich and became a Doctor of Engineering. Very early he was fascinated by the interactions between mechanical/acoustic energy and responses of the human organism.

Soon after World War II he was brought to USA and was launched on a research career in biophysics at Wright Patterson Air Field in Dayton / Ohio. From 1956–1988 he was Director of the Biodynamic and Bioengineering Division at AMRL. Besides this

he served as chairman of the ISO Working Group which prepared and obtained consensus for the adoption of ISO 1999. As member of the Acoustical Society of America for over 50 years he served as its President in 1979-1980. There is a long list of functions and activities of Henning in various societies, national and international boards which have already celebrated Henning's merits. An intense obituary for Henning is published by Kenneth M. Eldred who knew him best.

ICBEN and its members are very happy to remember him as a dynamic and outstanding expert and a friend with many key qualities. He quickly found the central core of complex issues. He convinced and stimulated in scientific discussions searching for the truth. He gave us answers to many scientific questions. It is worth while dedicating our congress 2008 to Henning von Gierke.

