

Indoor Environmental Quality Global Alliance (IEQ-GA): History and Future

William Bahnfleth¹, Peter Wouters², Donald Weekes*³

*1 Penn State University
104 Engineering Unit A
University Park, PA, USA*

*2 Air Infiltration and Ventilation centre
INIVE EEIG
Lozenberg 7
1932 Sint Stevens Woluwe, Belgium*

*3 InAIR Environmental
1716 Woodward Dr. Suite 200
Ottawa, ON, Canada*

**Corresponding author:
don.weekes@inairenvironmental.ca*

SUMMARY

In these three presentations, we review the origins and history of the Indoor Environmental Quality Global Alliance, AIVC's view of the potential value of IEQ-GA, and directions it is taking and may take over the next decade.

KEYWORDS

Indoor environmental quality, Research, Policy

1 HISTORY OF IEQ-GA

The Indoor Environmental Quality Global Alliance (IEQ-GA) was formed following discussions initiated by 2013-2014 ASHRAE President William Bahnfleth and carried forward by a committee chaired by future President Bjarne Olesen. The intent was to bring together organizations concerned with one or more aspects of IEQ: indoor air quality (IAQ), thermal comfort, lighting, and acoustics to foster collaboration in a number of areas.

The reasons for fostering the development of such an organization were many. A key consideration was a perceived lack of recognition in the building design, construction, and operation industry of the impact of indoor environments on health due to the high importance attached to energy efficiency and environmental protection. Another was the lack of an holistic approach to IEQ that results from organizational silos focused narrowly on one aspect of IEQ. A third was current state of IEQ standards and regulations, which tend to focus on acceptability and are only beginning to reflect the findings of research on health, learning, and productivity. An IEQ-GA was seen as a vehicle for, among others, sharing of information and communication among member organizations, raising the profile of IEQ in a variety of ways, seeking consensus on the state of knowledge, identifying research needs, and interpreting the research literature to inform policy and standards advocacy.

The group of founding partner organizations via a memorandum of understanding signed in June 2014, included the American Industrial Hygiene Association, Air Infiltration and Ventilation Centre (AIVC), Air & Waste Management Association (AWMA), Indoor Air Quality Association (IAQA), and Federation of European Heating, Ventilation and Air Conditioning Associations.

During the first four years of IEQ-GA operation, the members have met regularly to discuss the path forward with ASHRAE serving as secretariat. AIVC developed and maintains an IEQ-GA web site (ieq-ga.net). Activities to date have included organization of programs at conferences, and initiation of a project to review representative IEQ standards from around the world that is nearing completion. Recruitment of members to complete the representation of all branches of IEQ has continued and several other organizations have joined or are considering joining. Finally, recent work has focused on establishing a IEQ-GA as a non-profit organization following the expiration of the original MOU.

2 AIVC AND IEQ-GA

As one of the founding partners of the IEQ-GA, the networking with other organisations within the global alliance is for AIVC very important.

Whereas AIVC has primary a focus on good indoor air quality (by using ventilation) and good thermal comfort during warm periods (by using intensive ventilation), it is clear that an overall approach to indoor environmental quality is important.

In addition, it is important to strengthen our messages by joining forces with other relevant organisations so that the impact in the market can increase. We believe that the IEQ-GA has the potential to contribute to these objectives.

A first AIVC publication in collaboration with IEQ-GA was AIVC technical note 68 “Residential ventilation and health”. The 2018 conference in Juan-Les-Pins is organized with the support of the IEQ-GA.

3 THE NEXT DECADE

Since the inception of IEQ-GA in 2013, it was believed that there can be one professional organization (IEQ-GA) can ensure that all parties involved in providing indoor environmental quality will work together effectively to improve conditions in buildings (residential, commercial, industrial, medical, agricultural, educational, governmental) throughout the world.

To fulfill this goal of one professional alliance to represent all of the parties involved in IEQ, the IEQ-GA has developed a Strategic Plan for its future. The Strategic Plan discusses the plan for the IEQ-GA to become a non-profit association (NPA) under Belgium law. The advantage of a formal legal entity is that IEQ-GA would have status to pursue EU grants (or any contracts) with other parties.

As noted in the Strategic Plan, the objectives of the IEQ-GA include the following:

- To develop, and nurture, an international alliance between professional organizations that address indoor environmental quality issues.
- To support and to participate in IEQ conferences worldwide:

- By encouraging and supporting technical and scientific research presentations by the members of the IEQ-GA member organizations;
- By marketing support of the conferences to the IEQ-GA member organizations;
- By providing logistical and technical support, as appropriate, for the conferences.
- To encourage and support IEQ research worldwide by providing a forum for an exchange of ideas and concepts by researchers and practitioners.
- To promulgate through the member organizations' publications, the IEQ-GA website and social media the latest scientific and technical manuscripts and papers on topics related to IEQ.
- To provide scientific and technical comments, as appropriate on legislation, standards and codes that affect indoor air and environmental quality.
- To increase awareness about the importance of health and wellness in buildings among designers, builders and building occupants.
- To develop a comprehensive listing of information resources available to the built environment professionals interested in promoting IEQ excellence.
- Through education and awareness, to reduce the number of deaths attributable to poor IEQ in development economies.

It is important to note that the activities of the IEQ-GA are intended to supplement the current members' IEQ activities, particularly on an international basis.

The possible outcome of the activities can be:

- Research recommendations
- Proposals for publications and educational courses.
- Influencing and/or propose standards.
- Common position documents
- Combined conferences

It has been discussed that the IEQ-GA will be a co-sponsor of the ASHRAE IEQ Conference in 2020. The members of the IEQ-GA will then work with ASHRAE to organize the following IEQ Conference in 2023. These long-term plans will come to fruition with the support of the IEQ-GA member organizations and our outreach to other professional, trade and governmental entities that what to be a part of IEQ-GA.